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ABSTRACT

This collection represents diverse views and opinions concerning integration of individuals with disabilities in Australia and, to a lesser extent, New Zealand. The objective in producing the volume is to stimulate thought and further debate about the policies and practices associated with integration, and numerous perceptions of integration are offered. Titles and authors of individual papers are as follows: "A Background to Integration" (John Elkins); "Two Models of Integration: A Review of Some of the Recent Literature on the Effects of Integration in Schools" (Peter Cole); "An Ecological Analysis of Progress toward Non-Restrictive Environments in New Zealand" (Keith D. Ballard); "Integration of Children with Physical and Intellectual Abilities into Support (Special) Classes Attached to Regular Schools" (Yola Center and others); "Support for Integration: Questioning the Efficacy of the Resource/Remedial Model of Service Delivery to Academically Handicapped Children" (Barry A. Fields); "Cognitive Strategies for Use in Classes Containing Students with Diverse Abilities" (Adrian F. Ashman and Robert N. F. Conway); "Mainstreaming of Secondary Students with Sensory Disability" (Philip J. Foreman and Robert N. F. Conway); "Students with Learning Difficulties in Secondary Schools: A Whole School Approach" (Ian Hay); "Integration of Townsville Special School Students at Townsville High School" (Barry Harker); "Teaching in Integrated Settings: A Focus on Professional Development" (Bill Patching and others); "Integration of Young Children into Regular Early Childhood Settings: Management of Staff and Parents" (Roger A. Baxter and Barbara Lee Crickmore); "A Model for Providing Specialist Therapy-Support Services to Children with Physical Disabilities Who Are Integrated into Mainstream Schools in City and Rural Areas" (Tim Ziersch and others); "Developing Curriculum and School Organization To Integrate 'Disruptive Students'" (Roger Slee); "Service Provision and the Acceptance of Change: Integration across the Life-Span" (Ron Joachim); and "The Integration of Students with Disabilities into Regular Schools in Australia: Can It Be a Reality?" (Paul M. Gannon). (JDD)

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CURRENT THEMES IN INTEGRATION

The Exceptional Child
Monograph Number Two

Adrian F. Ashman
Editor

EC 301 222

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THE EXCEPTIONAL CHILD

MONOGRAPH NUMBER 2

CURRENT THEMES IN INTEGRATION

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PREFACE

Integration, as an education policy, has become accepted in all Australian states and territories. Being accepted as policy, however, does not mean that there is any agreed-upon practice or set of procedures for integrating children with physical or sensory impairments, behaviour disorders, or learning difficulties into regular class programs. In reality, most government policies have prescribed that integration will occur but, generally, provide guidelines only for mainstreaming children which may be interpreted many ways at the school and class levels.

The principle of integration evolved from the belief that children with specific education needs would be more advantaged in their academic achievement and social development if they attended regular classes rather than being isolated from their age peers in special schools or classes. The policies, however, seem to have developed with a major consideration being given to cost savings involved in closing or restricting access to special education setting rather than to any potential educational advantages accruing to the students. It is probably not surprising that confusion about how to enact integration policies has been widespread at the system, school and class levels when school personnel have been required to integrate children with many and/or varied educational "problems" and when there has been no programming prescriptions (such as the mandatory IEPs in the United States) or additional funds and resources being made available.

Regardless of the difficulties being experienced, the integration of students with special needs will continue and the education community will have to deal with the pragmatics of the application of the principle and the policies. To sample the issues and to discuss the integration successes and failures, a special national conference was held at The University of Queensland in May, 1988. The purpose of that meeting was to take stock of the trends and developments which had occurred in Australia and overseas and to learn from the successes and mistakes.

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The monograph, *Integration: 25 Years On* (now out of print) collected many of the participants' views and was subsequently used as a reference, resource and a text in a number of University courses which focused on the integration of students with special needs. Several of the original contributors were asked to reconsider their papers in the light of the developments and changes which have occurred over the past three years. As in the 1988 book, this collection represents diverse views and opinions concerning integration in Australia and, to a lesser extent, New Zealand.

As you read the various contributions you will note that authors do not always agree on the way in which integration should be handled in Australia schools. Such a situation reflects the position that there is not simply one way in which integration is perceived, or one way in which the policy must be enacted. If this volume stimulates thought and further debate about the policies and practices associated with integration in Australia and New Zealand, our objective in producing it will have been achieved.

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CHAPTER 1

A Background to Integration

JOHN ELKINS
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Australia as a nation is making steady progress toward equity. The Disability Services Act of 1985 placed emphasis in Commonwealth funding upon services which supported adults with disabilities in the community. Thus the goal, if not yet the reality, is community living and employment. In some sense, the vision for adults with disabilities is clearer than for children, since educational legislation across the states and territories is deficient in the area of equity.

Societal change is typically slow, for our expectations are profoundly affected by our experiences of past practices and attitudes. Thus the reality for many Australians with disabilities falls short of the principles underlying the Disability Services Act. In part this results from funding limitations, and in part from disability being absent from some anti-discrimination legislation. But it must also be recognized that there is opposition to the prevailing trend towards community participation. Parents have found it difficult to adjust their thinking, and fear the risk-taking that normalization involves. Voluntary organizations also have resisted some aspects of the changes which the Disability Services Act has brought, and there is little evidence that their group homes and sheltered workshops have diminished in number or clientele.

Perhaps most disturbing of all is that the ideological context for reformulating disability services has not changed greatly in the past decade. Most of the impetus has come from North America via published literature and visiting experts who expounded their beliefs with missionary zeal. While a limited range of people (mostly those with professional connections to

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disability) have adopted new philosophical positions, it is unlikely that these have yet permeated Australian society. Civil rights, for example, has not figured prominently in Australia until recently. Thus the inquiry into Aboriginal deaths in custody, the Fitzgerald inquiry in Queensland and the reporting of the activities of the Human Rights Commission have probably increased public awareness of human rights and civil liberties more effectively than most other events in Australia's history. But these seem to be low key in comparison to the effects in the American public of the civil rights movement led by the late Martin Luther King Jr. One could reasonably claim that much progress in disability equity is but a thin veneer. Only a year ago, Brenden Borellini, who completed a distinguished secondary education despite congenital deafness and blindness, was recognized as a Young Australian of the Year. Yet his first year of tertiary study was frustrated by lack of recognition of his right to supportive services. Fund-raising for the disability area is predominantly charity-based, as governments have not mandated funding even where they have legislated for appropriate services.

This has been a long prologue to the topic of this volume, namely integration in the education system. However, few discussions of educational integration or mainstreaming make explicit reference to the circumstances of adults with disabilities in society. That this is important, if not essential, can be seen from a few examples. In Hungary, there are few adaptations to assist wheelchair users (and few wheelchairs), so that the focus of special education for children with cerebral palsy and some other physical disabilities has been on functional movement including mobility. The Peto Institute, now directed by Dr Maria Hari, offers a full-time residential program using specialized procedures known as Conductive Education. Graduation is achieved by independent execution of routine tasks such as eating, dressing and walking. While there has been Western interest in Conductive Education for at least two decades, and there is now an explosion of imitative activity in the United Kingdom and much interest in Australia, the full program runs counter to current implementations of normalization theory in schools. In Australia, for example, programs using the principles of Conductive Education are located in special schools, but since few are residential, the programs are necessarily less intensive than the Hungarian model. One might speculate that the apparent lack of interest in Conductive Education in the USA stems in part from an ideological clash with PL 94–142 which assumes that educational programs involve processes as close as possible to the community norm.

Another insight into normalization can be obtained by examining an educational arena in which special education is a recent phenomenon. Tertiary education has highly competitive entry criteria and until recently no consideration was given to the possibility that students with disabilities might enrol. In the late 1950s, when I was an undergraduate in The University of Queensland, an occasional student with moderate hearing, visual or physical impairment succeeded in tertiary study, albeit with only occasional informal and, thus, chancy assistance. By the mid 1980s The University of Queensland had over 200 students who indicated on their enrolment forms that they had some disabling condition. The University had established an infrastructure of policy committee, departmental contact persons and full-time coordinator—all without designated fund-raising (though the large number of volunteers engaged in tape-reading deserves special mention). Services for students with a disability are now encompassed with the University's Equity Plan. The Federal Government *expects* the University to serve students with disabilities within its recurrent budget and requires annual reporting as to the effectiveness of the University's services.

It would be premature to conclude that the tertiary sector has solved the issues of integration. Occasional examples of discrimination by staff occur, and research by Bramley, van Kraayenoord and Elkins (1990) indicate that, for the most part, the student body has ignored its members who have disabilities. They may study at university, but they do not participate in clubs and societies, do not play sport and have few friends.

One may tentatively conclude that lack of a history of segregated provision may assist in participation by students with disabilities, that funding policies which expect that special support will be obtained out of total operating budgets will result in fair apportionment of limited resources, and that public reporting of policies and practices will educate people inside and outside the educational enterprise. Perhaps there is a message for those who are attempting to serve students with disabilities in the school system. It may be difficult to overcome the effects of historical segregation—the expectation that specialists will, and ought to, educate students with special needs. A window of opportunity exists as education systems are devolving resources and responsibilities to schools. If schools could no longer simply expect 'someone else' to provide special education, they would need to consider the provision of this service from their own available resources. The political game would then shift to local communities. A vital caution is that central policy will be needed to ensure that the needs of all children are recognized in local decision-making.

Much of what is presented in this monograph can be considered from the perspective of school improvement. If schools were better at educating students in general, they would be able to educate a large proportion of those presently deemed to need special education. Cole's chapter points out that we have a considerable knowledge base on which increased integration can be supported.

Ballard presents an analysis of mainstreaming in New Zealand in the latter part of the Labour era. This has been marked by legislation which guarantees enrolment and free education in any public school. This has been marked by legislation which guarantees enrolment and free education in any public school. This represents an abandonment of the 'least restrictive environment' principle and in its place is parental choice. Thus, as in Victoria, segregated provisions remain, but parents cannot be over-ridden if their choice is mainstream placement for their child.

While less radical than Ballard's chapter, Center et al.'s analysis of support classes within regular schools indicates that much can be done to provide high quality and non-discriminatory programs. It is vital that schools demonstrate in their allocation of resources that students in special classes are valued equally with their peers.

Another aspect of school improvement that deserves attention is how well it delivers support to children in mainstream classes. Fields has conducted systematic research which illuminates issues long neglected in Australia. Ashman and Conway's field research on cognitive strategy instruction adds the dimension of how regular teachers themselves can improve outcomes for all children in classrooms with widely varying abilities and aptitudes.

Secondary schools are responding to a changing student population with retention rates as high as 80%. Chapters by Foreman and Conway, Hay, and Harker address various aspects of integration in secondary schools. As the curriculum itself becomes optional and differentiated, it may be easier to provide appropriate non-discriminatory education for students with disabilities and those who find the traditional academic focus inappropriate or irrelevant. Slee also addresses an issue of particular importance in secondary schools—behaviour problems. As he points out, it is possible for schools to be excluding disruptive students at the same time as they espouse a policy of integration. Slee also draws our attention to the need to improve schools generally if they are to provide for all students.

If schools are to engage in self-improvement, staff professional development will be essential. Patching, Stafford and Boyle relate professional development to the literature which tells us how teachers presently perceive the integration of children with disabilities. Teacher self-development can be a powerful force if education systems and higher education institutions can harness opportunities being presented by restructuring of teacher awards.

Integration in preschool and childcare settings must involve the parent, for whom the birth of a child with a disability is often an unresolved issue. Baxter and Crickmore use case studies to illustrate the need to treat each child and family individually. Bringing therapy services to children with disabilities in regular school is a challenge arising from the present trend toward integration of children with physical disabilities. Ziersch, McGregor and Braybon describe attempts in South Australia to provide supportive therapy in Adelaide and in rural areas.

Joachim discusses educational integration for adults with intellectual disability. He points to the need for better training of educators to work in this area, and for education to be provided in real-life contexts rather than classrooms. Gannon picks up many of the themes of earlier chapters with a vision of policies and practices which will increase integration in Australian schools.

One reason why society needs to solve the problem of integration is that the context of regular schooling is becoming increasingly difficult. Schools have been expected to handle many non-traditional tasks, and the responsibility to provide support to students affected by poverty, family breakdown and youth unemployment has increased stresses upon teachers.

If Australia ratifies the UN Declaration on the Rights of the Child, if anti-discrimination legislation is strengthened, and if strong advocacy groups emerge nationally, we may see integration as the norm. Such a situation will demand improved teacher education and no reduction in total resources to support the education of children and adults with disabilities.

Reference

Bramley, J., van Kraayenoord, C., & Elkins, J. (1990). *Understanding young women with disabilities.* St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

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CHAPTER 2

Two Models of Integration. A Review of Some of the Recent Literature on the Effects of Integration in Schools

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"**Mainstreaming** refers to the temporal, instructional, and social integration of eligible exceptional children with normal peers based on an ongoing, individually determined, educational planning and program process ... (that) requires clarification of responsibility among regular and special education administrative, instructional, and supportive personnel" (Kaufman, Gottlieb, Agard, & Kukic, 1975, p. 4). This definition refers to both a goal and a process. In particular, it denotes an ideal outcome in which students with disabilities and regular class students share a common educational environment. It also refers to a broadly defined process by which children with disabilities are integrated into regular school environments. It makes no reference to the proportion of children with disabilities who should be mainstreamed, only that eligible exceptional children are to be included in the process of mainstreaming. The definition does not recommend mainstreaming as a desirable goal for all students with disabilities.

In contrast, Johnson and Johnson (1980) have proposed a far more comprehensive definition of mainstreaming. They have stated: "mainstreaming can be defined as the provision of an appropriate educational opportunity for all handicapped students in the least restrictive alternative, based on individualized education programs, with procedural safeguards and

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parent involvement, and aimed at providing handicapped students with access to and constructive interaction with nonhandicapped peers" (p. 90). This definition makes explicit reference to the desirability of mainstreaming for the whole range of children with disabilities. The authors have included in their definition a "least restricted alternative" precept which connotes approval of maximum challenge and stimulation in the educational environments in which students with disabilities are educated.

This paper contrasts two opposing attitudes toward the mainstreaming model. The first of these advocates a commitment to the comprehensive mainstreaming of all students with disabilities. Lipsky and Gartner (1989), Ferguson, Ferguson and Bogdan (1987) and Biklen, Ferguson and Ford (1989) have supported such a view. They suggest that regular and special education should be merged since segregated educational programs have outlived their usefulness. They recommend that mainstreaming should be the goal for all children with handicaps. As well, they advocate the closing of all forms of segregated education including institutions and special schools. Those who accept this model strive to find the appropriate educational environments that maximize association between regular class students and students with disabilities in integrated settings. In this case there is general support for the Johnson and Johnson (1980) definition already outlined.

The second is the individual needs model. According to this view the needs of the individual with disabilities are the primary concern (Braybrooke, 1987). Those who adopt this model suggest that teachers should carefully assess children's needs, in particular their intellectual and social development, before making decisions about the best instructional environment for individual students. They claim that these needs are paramount in any decision about educational programming and that, though mainstreaming is an ideal, in some instances segregated educational programs may be in the best interests of some students with disabilities. Those who uphold this model are inclined to accept the Kaufman et al. (1975) definition of mainstreaming.

Arguments in Favour of Comprehensive Mainstreaming Ideal

One of the most powerful arguments in favour of mainstreaming is based on the demonstrated failure of many students in segregated educational programs to achieve worthwhile educational goals (Gottlieb, 1981). Research has shown that there are few unambiguous benefits associated with segregated placements for this population of students (Salend, 1984; Lipsky & Gartner, 1989). It has been revealed that children in segregated settings are often relegated to extremely low status in such systems, the result being a loss of self-esteem. Future employment prospects and expectations for normal adjustments are reduced if students are not exposed to the models of adjustment that are commonplace in regular schools. There are few skills taught in segregated programs that cannot be taught in regular schools.

The second argument is based on sociological research which has demonstrated that many persons with disabilities are labelled as such only during their school years and lose this label once they leave school (Mercer, 1973). Clinical and epidemiological data reveal the "handicapped" label is rarely applied in the preschool period, or employed widely during the post-school period, but is used extensively during the period of compulsory schooling (Zigler & Hodapp, 1986). It follows that labels applied by school authorities provide improper justification for segregated schools and classes, since the labels do not denote a permanently disabling condition. It has been suggested that labels applied by psychologists and special educators are artificial and act as a barrier to normal adjustment and integration. The advocates of the comprehensive model of mainstreaming recommend that students with handicaps be permitted to enrol in classes in the regular program in the same way as other students. In this way, the students with disabilities avoid derogatory labels and can be absorbed naturally into the mainstream of regular school life.

The third argument in favour of desegregation is based on natural justice, equal opportunity or equity principles. It is stated that segregated settings place an individual with disabilities at a social and economic disadvantage since they do not permit access to the multiple benefits of the regular school system. Any administrative procedure that excludes a significant proportion of the school population from admission to the valued services in regular schools is viewed as a procedure that denies basic human rights. Further, it is argued that unless the advocates of a separate school system for students with handicaps can demonstrate clear benefits in segregated services, there is little justice in allocating students to such services. Promises are often made to parents about the "special and superior services to match the child's needs" in segregated settings, but critics claim that such special advantages do not exist and that natural justice demands that these children be educated in local schools.

Guralnick and Groom (1987) conducted a study on the integration of a group of mildly delayed 3- and 4-year-old preschool children. The children with disabilities were paired with nonhandicapped (normal) children in play-group situations or with other children with disabilities. The normal children were chosen from two groups, a younger and an older group. The younger normal group was of the same level of cognitive ability as the children with disabilities. The older normal group was the same chronological age as the students with disabilities, but had a higher level of cognitive ability than the children with disabilities. One group of children with disabilities was also paired with other children with disabilities of the same age. The study aimed to determine patterns of social interaction of these separate groups in typical playgroup situations.

Results indicated that one kind of pairing had a marked effect on social interaction. Children with disabilities who were paired with normal peers of the same chronological age as themselves improved the frequency and quality of their social play. They were more active and more "normal" on all measures of social behaviour. The children with disabilities modelled their play on the behaviour of normal students. The children with disabilities who were paired with other children with disabilities were very restricted in their play and did not engage in the positive relationships that characterized the former group. A similar negative finding was observed for the children with disabilities who were paired with young normal children. They did not benefit as much as those given the opportunity to play with normal children of the same age.

What conclusions can be drawn from this and what are the implications for educational policy? It seems obvious that the preschool children with handicaps given the opportunity to play with nonhandicapped children of the same age benefited considerably from this social experience. It is also clear that the children with handicaps who were restricted to play experiences with younger peers or other children with handicaps did not benefit to nearly the same extent. Mainstreaming seems to facilitate the acquisition of appropriate social behaviour in preschool children with mild disabilities.

Anderson's (1973) study reports a project designed to integrate children with physically handicaps into regular school classes. Seventy-four children were selected for intensive study: 17.5% were classified as mildly handicapped, 60.8% were moderately handicaps and 21.6% were severely handicapped. Twenty-one percent were diagnosed as having cerebral palsy, 16% had spina bifida and 24% had congenital abnormalities. A significant proportion fell into the "other" category of physical handicap, which included some students with heterogeneous disorders. Most of the experimental group children were of normal intelligence. The control group consisted of regular children matched on chronological age drawn from the same schools.

The results of this study were generally supportive of the integration program. Ninety percent of the parents of children with handicaps reported that their children were happy at school, compared with 80% of the control group parents. The children who fared worst on the social adjustment schedules were the most neurologically impaired and had lower levels of cognitive ability or lower school attainments. The finding of particular importance was that "most children (with handicaps) without neurological disorders are well able to cope, emotionally, with the environment of an ordinary primary school" (Anderson, 1973, p. 293). Despite this generally positive result, the author did conclude that children with physical handicaps were clearly more vulnerable than the control children and needed the special attention of teachers in the integrated setting.

The attainments of the students with physical handicaps in the academic subjects were most satisfactory. Just over 30%of the control subjects were in the below average category in number work; 29.5% of the students with physical handicaps without neurological handicap were given a similar rating. The group with neurological handicaps fared worst of all; 78.1% of this group were rated as being of below average ability. A similar pattern of results was found for reading achievement scores. Reading backwardness was at a rate of 10.5% among the controls compared with a figure of 14.5% among the students with physical handicaps. Anderson (1973) concluded that the physical handicaps alone did not seem to be the cause of academic failure, rather the presence of other complicating factors, in particular neurological disorders and learning disabilities. The success of the mainstreaming program for children with physical disabilities without neurological handicaps is clearly revealed in these data. The implications for those with gross neurological disorders are less clear.

Wang and Birch (1984) conducted a study of 156 K-3 classrooms in ten school districts. Thirty-five children with handicaps were included in the study, the majority being students with learning disabilities. The researchers examined two dimensions of this problem The first was the relationship between the degree of implementation of the ALEM program and the second the effects of this program on students' achievements. The ALEM program contains a composite package: (a) a set of diagnostic indicators to determine levels of skill development; (b)a prescriptive skills package for instruction; (c) an exploratory learning module that encourages independent learning; and (d) an assessment schedule used to determine the degree of implementation of the ALEM package in the classroom.

The program was highly successful and there was a positive correlation between ALEM program implementation and student success rates. Those teachers who implemented the ALEM program totally had better results than those who only partially implemented the program. Furthermore, the instructional program had a substantive effect on both student attainments and learning processes. The students with learning disabilities improved significantly in basic academic skills during the period of the experiment. A lower level of disruptive classroom behaviour was also reported during the program's implementation. Unfortunately, control groups were not used in the experiment. Gain scores for the project group were compared with estimated gains from normative data provided from standardized achievement test records. Wang and Birch (1984) also recorded success for the group with disabilities in student-initiated classroom interactions and teacher-student interactions.

Perlmutter, Crocker, Cordray and Garstecki (1983) asked nondisabled students and regular class teachers to rate the social behaviour and personality of students with learning disabilities. Not unexpectedly, the students with learning disabilities were generally less well liked than their peers, but a large percentage of the students with learning disabilities were accepted and satisfactorily adjusted in the regular school classrooms. Regular class teachers had better opinions of the social status of the children with learning disabilities than did the special education teachers. Special education teachers had higher opinions than regular class teachers of the academic skills of the students with learning disabilities.

Hanrahan, Goodman and Rapagna (1990) investigated the priorities given to different aspects of programming in preparing children with disabilities for the regular school classroom. They found that regular class teachers and special school teachers differed in their assessment of the competencies needed for mainstreaming. The regular class teachers were inclined to give greater weight to the academic subjects domain, in particular to reading and writing, than were the special class teachers. The regular class teachers were also more concerned about the potential problems of aggressive and disruptive behaviour. The implication is that in order to prepare children with handicaps for mainstreaming the special school teacher needs to do more to teach reading and writing skills and also make sure that any problems with aggressive behaviour are overcome. These data confirm some of the Australian research on the same issue which shows that teachers expect children with handicaps to fit the routine of the regular class (Center & Ward, 1987).

The several studies reported here demonstrate that mainstreaming programs can be implemented successfully in many educational settings. Most of these studies deal with mainstreaming programs for students with mild and borderline handicaps and for those in these categories the research results on mainstreaming are most encouraging. In the past teachers may have sought secure and isolated environments (even segregation) for students with mild handicaps, but this is no longer seen as a desirable option for these students.

In the view of those who espouse the comprehensive mainstreaming ideal all segregated programs should be eliminated, even those providing services for children with severe handicaps. The goal of this model is the integration of all students with handicaps. The supporters of this model cite numerous studies of the kind described above where mainstreaming has been successful. They also provide many examples where the results of segregation programs have resulted in abject failure. The long-term solution, in their view, is to arrange comprehensive forms of mainstreaming in integrated environments for all students with handicaps.

Arguments in Favour of the Individual Needs Model

The counter argument is based on the view that without an adequate assessment of individual needs it is impossible to make appropriate judgements about educational intervention. Further, it is suggested that the comprehensive model is unnecessarily restrictive and presumes that segregated programs are always inferior to mainstreamed programs. Advocates of this view maintain that it is far better to first diagnose the child's problem areas and then make a decision about placement. It is claimed that the individual needs model allows greater flexibility to deal with the special problems of persons with handicaps.

Those who accept the individual needs model generally support the view that many students with disabilities should be integrated into the regular schools. However, they claim that there are other students with disabilities (particularly those with severe and profound handicaps) who do not benefit from mainstreamed placements. Those who accept this model are persuaded that comprehensive integration of all students with handicaps is not practicable and claim (a) that many children with learning handicaps cannot cope with the rigours of regular school life and need the protection of a sheltered environment; (b) that an appropriate level of facilities and teaching staff cannot be provided in all regular schools (i.e., there are limited resources, special staff and equipment that can be allocated to special education and any strong commitment to comprehensive mainstreaming will lead to a diminution in the average level of care for children with handicaps); (c) that regular class children should be protected from possible constraints on normal scholastic progress. That is, regular class children should be free to achieve their true potential uninhibited by the limitations that may be imposed on them if children with handicaps are placed in their classes, and (d) that students with the most severe forms of disability (possibly about 1% to 2% of the school population) should remain in segregated programs so that medical and ancillary therapy services can be provided on an efficient cost-benefit basis.

The arguments for the individual needs model are not in opposition to the principle of integration as such. The primary case is against its comprehensive integration provisions and in its place support is given to the view that segregated services provide a least restrictive environment for a significant proportion of students with handicaps. The advocates of the individual needs model deny the failure of segregated placements to achieve worthwhile goals and also refute the natural justice argument. It is also claimed that handicapping labels do not have a detrimental effect on students with disabilities.

A major stumbling block to complete integration of all students with disabilities is the paucity of staffing, resources and services in the regular classroom. There is debate about the degree to which regular class teachers should be responsible for the education of students with handicaps, particularly if additional support and resources are not provided (Center & Ward, 1987). There is abundant evidence to indicate that regular class teachers often fail to comprehend the deficits in social and intellectual abilities that are concomitant with most handicapping conditions. In many instances teachers overestimate the competencies of these children; in other circumstances they underestimate their potential. Teachers in regular classes readily admit that they are not comfortable with students with severe handicaps and have little knowledge of the curriculum requirements for students with handicaps. The implications for mainstreaming are obvious. There is a great deal of support for students with handicaps in schools, but there is also a great deal of confusion about how the goals of mainstreaming are to be achieved (Center & Ward, 1987).

Goode (1967) has indicated that many individuals demonstrate ambiguous attitudes toward the inept and persons with handicaps. On many occasions nonhandicapped persons will express supportive attitudes and protect persons who have handicaps or are disadvantaged. This is because there are genuine feelings of good will towards persons with handicaps and many will do what they can to alleviate the disadvantage they suffer in competitive situations. At other times the nonhandicapped will express disparaging attitudes toward persons with handicaps and reject their aspirations to "normal" status. This is because persons with handicaps are sometimes a threat to the social status of nonhandicapped persons and inhibit group harmony and productivity. It is perceived that persons with handicaps "hold back" a group's progress and lower the likelihood of rewards that accrue to group membership.

The implications of this paradox of values and attitudes toward mainstreaming can be demonstrated in many school contexts. Values that uphold tolerance and protection of students with handicaps are pervasive features of most school groups. Regular class teachers will often take extraordinary measures to protect the rights of persons with handicaps and provide them with appropriate services. On the other hand, there is another set of values pervasive in schools. These values serve to protect personal rights against improper or illegitimate abuse. It is recognized that all students have the right to personal freedoms and intellectual resources and that individuals with handicaps may in some instances deny these freedoms and resources to others. In such situations, the nonhandicapped will seek to protect the group from the inept and those with handicaps. Students with handicaps may be perceived as a social burden, especially if group productivity falls below tolerable levels and teachers are then less capable of providing adequate time to the more capable students. As a result the students with disabilities may be rejected or relegated to inactive social roles in segregated groups. Pressures for the rejection of the inept can be often be discerned when group productivity and social harmony are threatened.

The findings of Miller et al. (1989) support Goode's (1967) analysis. These researchers found that nondisabled students have positive and negative stereotypical expectations of persons with learning problems. There were few differences in the expectations of appropriate behaviour for retarded and nonretarded students. The students with handicaps were expected to conform to the rules of the collective and adjust to the rules that applied to all. The regular class students did perceive the children with handicaps as being in receipt of more favours and receiving more pity from others. They also perceived that the children with disabilities were less likely to make fun of them or demonstrate superior attitudes. Further, the children with disabilities were seen to be as likely as others to get into trouble in the school, start fights or scare others.

Cohen's (1986) research was based on a study of parents of elementary school nonhandicapped children who were asked to judge the social distance between their children and several categories of children with handicaps. The data showed that all labelled children were judged to be distant socially from the typical nonhandicapped student. The students with physical handicaps were seen as not too different from the social normal, but the severely mentally retarded and emotionally retarded were viewed as highly undesirable companions. When the parents were given verbal portraits of the handicapping conditions without the label and how these children typically work in school they were just as rejecting of them. They were particularly rejecting of the students with emotional problems, mild mental retardation, learning disabilities and hearing impairments.

Two conclusions can be drawn from the Cohen (1986) research. First, parents of regular class students often have negative stereotypes of students with handicaps and perceive their own children as being socially distant from atypical students. It is likely that nonhandicapped children share the attitudes of their parents. Surveys of research (Sabornie, 1985) in this area confirm this view. Students with emotional disorders and severe intellectual handicaps are not perceived positively by regular class peers. Likewise, children with handicaps are seen as having difficulty adapting to the regular class environment. Students with handicaps are rated among the lowest in status in peer groups, no doubt due to their low levels of adaptive behaviour and the perceived threats they pose to normal adjustment of the non-handicapped

It is also apparent that parents of regular class children prefer that their children associate with peers who are not handicapped. They are particularly wary of emotionally disturbed and severely mentally retarded children. The challenge for the educator is to devise ways of changing the attitudes of parents towards students with handicaps. The success of mainstreamed programs depends in large part on educating parents of regular class children to develop more accepting attitudes toward children with handicaps.

Brinker and Thorpe's (1986) study explored the integration of children with severe handicaps in an educational setting. Severely retarded students from 13 school districts were used as subjects in the study. Sixty percent of the 245 subjects in the study had no verbal communication and 83% were dependent on others for assistance in self-care. The students were observed in an integrated setting with nonretarded students. Measures were taken of school support, planning, the social and physical environment, target student characteristics and the interactive environment.

Results indicated that the interactive environment was the best predictor of rate of integration. In particular, the social behaviour directed by nonretarded students towards the students with retardation predicted 32% of criterion variance. None of the other variables was important in predicting the degree of integration. The success of the program depended in large part on the behaviour of the regular class students towards the students with handicaps and the degree to which they were prepared to interact with them. Further, it showed that school planning and organization may be relatively unimportant in the overall success of such projects if these peer attitudes are not sympathetic to integration. Research already quoted suggests that parent attitudes may also be a critical in this context.

Cole, Meyer, Vandercook and McQuarter (1986) reported on a study which involved elementary school regular class students and severely or profoundly retarded students of the same chronological age. The students worked in pairs, each consisting of a student with a handicap and a nonhandicapped member. Two treatment conditions were compared: a social instruction group and a friendly comments group. In the social instruction group the nonhandicapped students were given instruction in how to interact with students with disabilities, whereas the other group was simply told to use friendly comments when communicating with the children with disabilities. All students participated in a group activity situation that involved play with mechanical toys.

The results indicated a significant difference between the social instruction and friendly comments group, with the social instruction group doing best of all in the initial trials. However, the differences did not last. After the first few trials the mean gap between the groups disappeared and then over the last few trials the friendly comments group surged ahead. The nonhandicapped students could not maintain the social instruction regimen and appeared to lose enthusiasm for the task. It may be that the subjects in the social instruction group felt unable to maintain the level of interaction demanded by the program. Could it be that regular class students asked to interact with students with disabilities felt great initial enthusiasm for the task and then become disenchanted? Do teachers expect too much of the nonhandicapped students in asking them to accept responsibility for persons with severe handicaps? This research suggests it may be better to ask regular class children to adopt friendly attitudes towards students with severe and profound handicaps rather than persuade them to accept an instructional role in assisting these students.

Zetlin and Murtaugh (1988) have reported on the friendship patterns of students with mild handicaps in a high school setting. These researchers demonstrated that students with handicaps had fewer and less stable friendships than their normal peers. Further, the degree of intimacy and empathy that normally prevails between nonhandicapped persons is not present in the relationships between students with handicaps. The students with disabilities also had more friendships with same-sex peers, many of whom were close relatives. Parents of students with disabilities were less likely to allow these students the freedom accorded to the nonhandicapped. Many of the students with handicaps spent their time in isolation, away from the company of others. These students are clearly not as socially mature as the normal students and less prepared to become involved fully in the integrated social life of the typical high school.

Another study of some importance in this context was reported by Gregory, Shanahan and Walberg (1985). These researchers were concerned with a group of adolescents with learning disabilities in mainstreamed settings enrolled in several American public schools. From a sample of 30,030 high school students, 810 identified themselves as having a learning disability. This group was rated as extremely poor on all indices of academic achievement. Reading, mathematics, science and other subject area test scores were well below average.

The students with learning disabilities were also well below average in a number of other areas as well. Self-satisfaction was low, they tended to believe that others (rather than themselves) were responsible for their failures. They gave themselves low self-ratings on independence, attractiveness and popularity. Parent interest in their school work was low, they were more likely to have had been in serious trouble with the law and their friends were not generally interested in school. They reported to authorities that they felt themselves to be at the periphery of all school activities. Not only do they perform poorly on all subject area tests, but they also rated themselves as failures in almost all of the social and personal attributes that were most likely to lead to school success. The picture revealed by this analysis is not a particularly encouraging one. Critics of the comprehensive mainstreaming movement claim that such surveys reveal the general failure of present integration policies.

Gresham (1982) has argued that the ideals of mainstreaming are based on three faulty assumptions. These assumptions are that the placement of students with handicaps in regular classes will lead to (a) improved social interaction between nonhandicapped students and students with handicaps; (b) increased social acceptance of students with handicaps; and (c) increased modelling by students with handicaps of the social behaviour of regular class children. Gresham claimed that these assumptions are false and have lead to over-optimistic predictions regarding the outcomes of mainstreaming programs.

Gresham (1982) has reviewed the research on these vital issues. He claims that the evidence from the literature suggested that mainstreaming programs do not have the effects stated above. On the contrary, research suggests that regular class children interact very rarely with students with handicaps in social settings. The interactions do not result in lasting friendships and the outcomes of these social contacts often leads to negative outcomes, for example, conflict over matters of mutual concern. Students with handicaps are known to be deficient in the important social skills of cooperation, sharing, asking for information and general adaptive behaviour.

Gresham (1982) has also indicated that there is also little evidence to support the view that close association between students with handicaps and nonhandicapped children leads to greater social acceptance of students with handicaps. The reverse is often the case, some research indicating that students with handicaps in regular classes are rejected more often and accepted less often that nonhandicapped peers. It is necessary to add that few of the studies quoted by Gresham included quality programs of intervention that attempted to change the social behaviours and levels of tolerance of nonhandicapped peers. Even so, it does indicate that there are many barriers to be overcome if students with handicaps are to find ready acceptance in regular classrooms.

Conclusion

The arguments for and against mainstreaming are either excessively idealistic or unnecessarily pessimistic. On the one side are those who believe that the comprehensive mainstreaming model deserves total backing and that integrated settings are always preferable to any alternative. On the other, are those who advocate the individual needs model which considers that individual diagnoses should determine the type of educational program that should be put in place. The former have tended to be overly optimistic and incautious; the latter unduly conservative and pessimistic about the potential benefits of integration programs.

Those who believe in the value of enrolling all students with handicaps in integrated settings have provided much data to uphold the view that there are always superior benefits in comprehensive programs. In the same way, those who support the value of a mix of integrated and segregated settings have much clinical and research evidence to buttress the value of the individual needs model. Meta-analysis of the wide range of research studies on this issue reveals ambiguous findings, in large part determined by the quality of the integration programs. The effect size for mainstreaming is of the order +0.33 (Walberg & Wang, 1987) which is very modest in view of the very much larger effect sizes for other treatments reported in the literature (e.g., contingency management, mastery learning and cooperative learning) that could be applied in any type of educational setting. Integration may not be the critical issue, the important factor may be the quality of programs that are provided within mainstreamed and segregated programs already in place.

Teachers have adopted a protective and adaptive attitude towards students with handicaps. Many teachers have positive attitudes towards programs for students with handicaps, but are not supportive of integration programs that do not provide additional staff, services and resources (Center & Ward, 1987). Nonhandicapped students also give considerable support to students with handicaps, but only if it does not greatly interfere with what they perceive as their own legitimate aspirations to achieve desirable social and educational goals. Integration depends on other factors as well, including the quality of school administration, the kind of instruction offered by teachers and the attitudes of parents (Cole & Chan, 1990).

The success of integration programs depends to a large extent on the degree to which teachers, regular class students and parents are prepared to assist in the socialization of students with handicaps. This will in turn depend on the quality of political and public programs directed at improving the quality of services delivered to public and independent schools. The most likely outcome of any quality program of integration is a complex compromise in which most students with disabilities are fully integrated and others remain on the periphery of full acceptance. One way to ensure the success of integration programs is to legislate for all publicly funded education systems to mount quality integration programs for all students with handicaps. Real levels of success have occurred in other societies only where some kind of mandated service model has been put in place or where there has been a substantial allocation of government funds to special education programs.

References

Anderson, E. (1973). *The disabled schoolchild*. London: Methuen.

Biklen, D., Ferguson, D., & Ford, A. (Eds.) (1989). *Schooling and disability*. Chicago: University of Chicago Press.

Braybrooke, D. (1987). *Meeting needs*. Princeton: Princeton University Press.

Brinker, R., & Thorpe, M. (1986). Features of integrated educational ecologies that predict social behavior among severely mentally retarded and nonretarded students. *American Journal of Mental Deficiency, 91*, 150–159.

Center, Y., & Ward, J. (1987). Teachers' attitudes towards the integration of disabled children into regular schools. *The Exceptional Child, 34*, 41–56.

Cole, D., Meyer, L., Vandercook, T., & McQuarter, R. (1986). Interactions between peers with and without severe handicaps: dynamics of teacher intervention. *American Journal of Mental Deficiency, 91*, 160–169.

Cole, P., & Chan, L. (1990). *Methods and strategies for special education*. Sydney: Prentice Hall.

Cohen, S. (1986). Parents' attributions of exceptionality: Social distancing effects in the mainstreamed classroom. *Remedial and Special Education, 7*, 48–53.

Ferguson, D., Ferguson, P., & Bogdan, R. (1987). If mainstreaming is the answer, what is the question? In V. Richardson-Koehler (Ed.), *Educator's handbook: A research perspective*.(pp. 394–419). New York: Longman.

Goode, W. (1967). The protection of the inept. *American Sociological Review, 32*, 5–19.

Gottlieb, J. (1981). Mainstreaming: Fulfilling the promise? *American Journal of Mental Deficiency, 86*, 115–126.

Gregory, J., Shanahan, T., & Walberg, H. (1985). Learning disabled 10th graders in mainstreamed settings: A descriptive analysis. R*emedial and Special Education, 6*, 25–34.

Gresham, F. (1982). Misguided mainstreaming: the case for social skills training with handicapped children. *Exceptional Children, 48*, 422–433.

Guralnick, M., & Groom, J. (1987). Dyadic peer interactions of mildly delayed and nonhandicapped preschool children. *American Journal of Mental Deficiency, 92*, 178–193.

Hanrahan, J., Goodman, W., & Rapagna, S. (1990). Preparing mentally retarded children for mainstreaming: Priorities of regular class and special school teachers. *American Journal on Mental Retardation, 94*, 470–474.

Johnson, D., & Johnson, R. (1980). Integrating handicapped students into the mainstream. *Exceptional Children, 47*, 90–98.

Kaufman, M., Gottlieb, J., Agard, J., & Kukic, M. (1975). Mainstreaming: Towards an explication of the construct. *Focus on Exceptional Children, 7*, 1–12.

Lipsky, D., & Gartner, A. (Eds.) (1989). *Beyond separate education: Quality education for all*. Baltimore: Paul H. Brookes.

Mercer, J. (1973). *Labelling the mentally retarded*. Berkeley: University of California Press.

Miller, C., Malcarne, V., Clarke, R., Lobato, D., Fitzgerald, M., & Brand, P. (1989). What mentally retarded and nonretarded children expect of one another. *American Journal on Mental Retardation, 93*, 396–405.

Perlmutter, B., Crocker, J., Cordray, D., & Garstecki, D. (1983). Sociometric status and related personality characteristics of mainstreamed learning disabled adolescents. *Learning Disabilities Quarterly, 6*, 20–30.

Sabornie, E. (1985). Social mainstreaming of handicapped students: facing an unpleasant reality. *Remedial and Special Education, 6*, 12–16.

Salend, S. (1984). Factors contributing to the development of successful mainstreaming programs. *Exceptional Children, 50*, 409–415.

Walberg, H., & Wang, M. (1987). Effective education practices and provisions for individual differences. In M. Wang, M. Reynolds & H. Walberg (Eds.), *Handbook of special education: Research and practice: Vol. 1. Learner characteristics and adaptive education* (pp. 113–128). Oxford: Pergamon Press.

Wang, M. & Birch, J. (1984). Effective special education in regular classes. *Exceptional Children, 50*, 391–398.

Zetlin, A., & Murtaugh, M. (1988). Friendship patterns of mildly learning handicapped and nonhandicapped high school students. *American Journal on Mental Retardation, 92*, 447–454.

Zigler, E., & Hodapp, R. (1986). *Understanding mental retardation.* Cambridge: Cambridge University Press.

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CHAPTER 3

An Ecological Analysis of Progress Toward Non-Restrictive Environments in New Zealand

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In New Zealand the term mainstreaming is used to describe the integration of children who have disabilities into ordinary classrooms and schools. Progress toward integration is evident in two ways. First, some schools have committed themselves to educating all children, irrespective of ability or disability, in ordinary mainstream classrooms (e.g., Ballard, Ballard, & Van der Vyver, 1989; Ballard, Morton, & Van der Vyver, 1988). Second, new legislation, new administrative structures and consequent new policies have extended more support than has previously been available to parents who seek mainstreaming for their children (Ballard, 1990). Nevertheless, impediments to mainstreaming remain a significant feature of the education system. These occur in the form of opposition to integration from both special and mainstream educators; and in the form of some structural features of our education system that maintain labelling and "specialist" approaches to meeting the needs of children who have disabilities.

The present paper uses an ecological perspective to analyse education and disability in the New Zealand context. An ecological analysis can be useful in moving our attention from a focus on the individual who has a disability and their family, to other parts of the ecological system. Such a perspective may illuminate the experience of disability within particular social and cultural contexts. In particular, an ecological analysis stresses that the social attitudes and prevailing ideologies manifest in educational policies

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and programmes are part of the developmental context (ecology) of the child and family and so should be included in an evaluation of educational practices (the analysis of ecosystems—see Bronfenbrenner & Crouter, 1983). Also, in an ecological analysis "what matters for behaviour and development is the environment as it is *perceived* rather than as it may exist in 'objective' reality" (Bronfenbrenner, 1979, p. 4). We are, therefore, involved in the "social construction of reality" (Barton, 1988, p. 90) and need to understand the forces that impact on that construction. This is not, however, to deny the power of objective conditions and events, including the actual resources available to families, the actual behaviour of others toward them and the effects of organisational features of agencies such as schools (Bronfenbrenner, 1988).

The concept of the "system" is a further aspect of ecological analysis. A system is an organised but complex set of interrelated variables influencing the child and being influenced by the child in self-regulating and self-perpetuating ways (Salzinger, Antrobus, & Glick, 1980). Systems operate on the basis of shared beliefs and definitions (Bogdan & Kugelmass, 1984) and the present paper suggests that these may be seen as forming "subcultures" which impact differentially on children and families.

Segregating "Special" Children

Special education in New Zealand has evolved in similar ways to that evident in other industrialised countries, resulting in a dual state system with separate special schools and classrooms for some (but not all) children who have hearing, visual, physical or intellectual disabilities (Ballard, 1990; Mitchell, 1987). The state has, therefore, declined to involve all children in mainstream education. While this has been motivated, in part, by humanitarian considerations it has also been, and continues to be, at least in part an economic decision. Children and young people with severe multiple disabilities, for example, were specifically excluded from the state education system in New Zealand until legislation mandating their inclusion in 1990, while some of our politicians are presently supporting the view that mainstreaming can only be undertaken where "resources can be provided" and that for persons with severe disabilities "the cost [is] too high", so that integration for them should not be pursued (Smith, 1990). Economics, therefore, sanction discrimination against children with impairments. It may also be for partly economic reasons that a separate special education system for children who have disabilities is supported. Any strategy to develop independence in persons with disabilities may ensure a reduction of their welfare support needs later in life (Barton & Tomlinson, 1984; Oliver, 1988). Segregation, however, is not usually overtly justified from an economic perspective. Instead, some psycho-educational models of assessment have provided a way of conceptualising disability that supports segregation as a necessary and appropriate "treatment of choice" for many children.

Within special education the dominant model of disability (and in particular intellectual disability) has differentiated normal from abnormal (special) children using biological concepts from pathological medicine and statistical concepts of deviance from psychology (Skrtic, 1986). In this medical model (Reger, 1972), assessment that indicates pathology or significant variance from normative experiences results in difference being interpreted as an attribute of the individual. The claim that psychological testing of individuals is an objective and scientific activity has further enhanced the power of this model to interpret disability as an identifiable condition of individuals, who may therefore be seen as different (or special) with regard to others. Disability, however, can be shown not to be a condition of individuals but rather a creation of specific social contexts (Wood, 1988). For example, children who have Down Syndrome have been identified in past policies in New Zealand as being incapable of learning in ordinary schools, yet now they participate in ordinary classrooms (Ballard, 1990). The children have not changed but our ideas about them have. Assessment models that emphasise difference and pathology can be seen, then, as models of social control made into a science by the language used (Bart, 1984). Their effect is to focus on the individual and remove attention from social values and structures that create disability (Booth, 1988; Oliver, 1988).

Creating a special and regular education system has had collateral outcomes that are both economically and socially problematic. In economic terms there is now a parallel mainstream and special education system duplicating expensive resources such as buildings and activities such as administrative structures and teacher training. In social terms, segregated special education has meant that a child with a disability is the responsibility of a particular group of professional specialists. Special teaching methods have been developed which further differentiate children with disabilities from other children. The specialisation of teaching with particular instructional technologies (such as applied behaviour analysis—see Department of Education, 1987) being required as part of special education teacher training further removes children and teachers from mainstream thinking and experiences. For mainstream teachers this serves to confirm their view that they lack the specialist training necessary for involvement with children with disabilities and that such children are, therefore, "better off" in settings "designed" to care for them. Through such mechanisms is segregation justified (on both sides) and special education established and maintained as an "insulated subculture" (Meyer, in press).

Segregation and the Culture of Difference

A philosophy of difference that leads to segregation creates conditions whereby those separated experience environments that lead them toward different perspectives, values and attitudes that are eventually distinctive enough to constitute a subculture (Homans, 1951). In such circumstances the dominant group (in terms of numbers or control of resources) has the power to define the minority in the terms approved by their (dominant) culture. The dominant group comes to know the minority only on its own terms—it is rarely challenged to examine its perspective and, in any case, lacks even the language to allow a different conceptualisation. As Miller and Swift (1976) wrote of male-dominated western cultures, the "pervasive ideology" that females are inferior persists because "alternative beliefs go unimagined" where the dominant culture "lacks the vocabulary even to formulate such alternatives ..." (p. 157).

Within special education the subculture of specialisation assigns to itself the power to determine who is treated as special and, therefore, who gets access to special resources. We see this in operation when professionals describe themselves as "gatekeepers" to resources. A child with a disability, therefore, does not have a right to access the education system in the same way as children without labels, but must seek, and often compete for, special resources. Being labelled special also means that parents lose rights that they may exercise with their other children who do not have to be labelled in order to go to school. If you have a disability, then professionals make decisions about your *needs*—in contrast, if you do not have a disability then teachers will usually attend to parent *wishes*.

A parent, Colleen Brown, has condemned the idea that once a child is labelled, professionals claim a major role in making decisions about educational needs. As she says, "A cringe phrase for parents is 'in the best interests of the child.' Surely the parents know this. Who questions us with our other children?" The culture of difference is further highlighted by Brown when she notes that:

> Parents are fronting up to schools often more fully informed than the professionals they are meeting. They are tired of trying to "sell" their child as a product to an indifferent market place and anger is a constant companion. It flares uncontrollably at times. I have seen the grief, the bewilderment, the despair in parents' eyes and certainly the exhaustion of battle. Continually parents ask themselves "Why should I have to do this?" What makes this child so different from others in the community? If parents had to "sell" each of their children to the education system, what a hue and cry there would be. Yet it is expected of parents of children with special needs. (1990, p. 26)

The views of New Zealand educators and other professionals involved in the culture of difference are not personal idiosyncrasies; they are the result of institutionalised discrimination against persons with disabilities. Indeed, it is important to note, as does Wolfensberger (1988a) that we should "distinguish systemic forces and impacts from the human functionaries of systems" (p. 75). Well-meaning people employed in systems which deprive them of experience of liberated persons who have disabilities may express the distorted views of the system. The hypothesis that such attitudes are structural, rather than simply individual, phenomena gains support from the fact that similar views are evident across countries in which education is organised along similar lines. There is a striking similarity in the experiences of prejudice and powerlessness reported by New Zealand parents (e.g., Ballard, Barnett, & Van der Vyver, 1987; Brown, 1990) and by those in England (e.g., Booth, 1988) and America (e.g., Turnbull & Turnbull, 1978). In England Booth (1988) replicates some of our own experiences in working with families trying to get their children integrated into mainstream schools when he comments that "I have been struck by the way the inequalities of power between administrators, professionals and parents are used to enable what is often an inferior knowledge base to dominate the outcome of discussions" (p. 115). Similarly, in America Krauss (1990) has noted problems in having parent input for the recently mandated (PL99-457) Individualized Family Service Plan where "program staff are not convinced that parents are ready to articulate appropriate goals for their children ..." (p. 393). We should ask, appropriate to whose norms, whose values?

The Origins of Change

Research

Special education is confronted by research indicating the positive outcomes that can be achieved for all children from mainstreaming (e.g., Ballard, 1988; Biklen, 1985, 1988; Meyer, in press), while teachers and parents who have experience of mainstreaming note that integrated schools are a significant step toward an integrated community (e.g., Ballard, Ballard, & Van der Vyver, 1989). In a follow-up study involving children 7 to 12 years of age with Down Syndrome who had taken part in the Christchurch early intervention program Rietveld (1989) found that the children who were mainstreamed (67% of the children studied) were also more highly integrated into their local community (attending sport, Brownies and cultural activities alongside other children in the community) than those who attended segregated special classes. For students who have severe disabilities, IEPs prepared for integrated settings have been shown to have more indicators of "best practices" in curriculum and teaching than similar planning for segregated school sites (Hunt, Goetz, & Anderson, 1986).

Values

In addition to the challenge of research to segregation in education is the challenge of the values position of integration. As Biklen (1985) writes, integration "is a goal, indeed a value, we decide to pursue or reject on the basis of what we want out society to look like" (p. 3). Given that there are children with every kind of disability who have been successfully mainstreamed into regular schools, "then logic requires us to ask why it cannot succeed for all students in all schools" (Biklen, 1985, p. 27).

Assessment models

The fact that many children who have disabilities are learning in mainstream classrooms brings into question the validity of the diagnostic-prescriptive assessment strategies used to differentiate and segregate children. Biklen (1988) examined the ecology of clinical judgement and noted that "people with disabilities are institutionalized, segregated and undereducated, socially rejected, physically excluded from public places and unemployed" (p. 128), a description that applies in New Zealand. We interpret this, says Biklen, as being the result of a disabling condition, and so we say that *the disabled* need treatment whereas, in fact, people with disabilities suffer mainly from social ostracism and discrimination. They need recognition of their human rights, not treatment. Yet, notes Biklen, "the more severe the disability the greater the likelihood that the person will be seen as a 'patient' than as an object of discrimination" (p. 128). Although a person with disabilities will, like anyone else, need certain medical and other services, what actually happens to them is that they become classified medically and educationally in a way that is all-encompassing.

The labels used in such classification often appear to be clinical and diagnostic and so have an aura of professional specialisation, but as Withers and Lee (1988) suggest, assessment in special education, while claiming to be "scientific ... contemplative and advisory" (p. 175), in fact involves a "profoundly ideological process" designed to provide "restricted gateways" to educational resources and ultimately to opportunities in a "positional society" (p. 177). The result, says Biklen, is that people with disabilities "report being seen and treated as 'sick' rather than as people whose disability is but one personal quality" (p. 129). It is important to note that researchers and other professionals responsible for developing and using classification systems are themselves part of the community context in which people with disabilities are categorised and thereby devalued. Professionals, therefore, must examine the ecology of their ideas and actions.

Institutional Resistance to Change

One feature of institutional resistance to change in New Zealand has been attempts to adjust the discourse of segregated special education to conform with the language of integration, an attempt by the subculture of special education to assimilate new inputs. The *Draft Review of Special Education* (Department of Education, 1987), for example, used the concepts of the least restrictive environment to attach the word "mainstreaming" to existing segregated facilities, so that special schools, units and classes were defined as involving social or locational mainstreaming. A parent perspective on this is recorded by Colleen Brown, who wrote that

> Mainstreaming sounds sweet to those who are determined on equity in the education system. The bureaucrats have soured the word with their interpretations. According to bureaucrats you may define mainstreaming as functional, social or locational. As a parent, I see the thrust for mainstreaming in the same light as de-segregation was for the blacks of America, which meant the freedom of opportunity and access to public facilities. Can you imagine a sign saying "blacks may sit on park seats but don't dare get on the swings." This is what is happening to children with special needs. (1990, p. 26)

The "three kinds of mainstreaming" was subsequently presented as policy in the *Education Gazette* (1988, Vol. 67, No. 8). This policy asserted that some children require segregation from the mainstream, denying the possibility of an integrated education system. The least restrictive environment principle promotes inequalities on the basis of degrees of disability. It assumes that the more severe the child's disability, the more likely it is that they will need segregated educational provisions and the less desirable it is for them to be integrated. The model also promotes inequality between professional and parent because it supports the primacy of professional decision making. *The Draft Review,* for example, stated that "all children should be included in the regular education stream except where this is clearly not in their best interest" (p. 3). Qualifying integration in this way is designed to assign the assessment of child interests to a professional. Instead of addressing the *wishes* of parents and students, this policy is framed in terms of a clinical model of professional decisions regarding integration as appropriate or segregation as necessary (Taylor, 1988). The policy of the *Draft Review* was derived from the Warnock Report (1978). This English report has been criticised for the underlying inequalities in its value base (see Booth, 1988) and for the fact that it was prepared by education and psychology professionals without major parent involvement. Oliver (1988) noted that Warnock constructed the idea of special educational needs to replace earlier labels attached to individual children. The result was a change only to the language used in a system that remains unwilling to meet the needs of all children. Oliver notes that the Warnock Report was unacceptable to disability groups in England because it ensured the continued segregation of children and was therefore seen as "institutional disabalism" (p. 21).

Within New Zealand, a values position that is supportive of integration has recently been endorsed by legislation amending the Education Act. From 1 January 1990 every person has the right to free enrolment and free education at any state school and there are appeal procedures with independent arbitration where education authorities and parents disagree on enrolment. Although a new policy is yet to emerge, indications are that, while "special" education is likely to be supported, including retention of some segregated facilities, the new policy will state clearly that mainstreaming means what it says. This would be an important conceptual support for working toward integration. The power of language and concepts must not be underestimated. As Taylor (1988) says, "concepts and principles can help us get from one place to another, to move closer to a vision of society based on enduring human values like freedom, community, equality, dignity and autonomy" (p. 51).

A Model for Systems Failure: Adjusting Within the Paradigm

Community and school comprise the ecology of the family, providing its life support and social support system. The presence of a child with a disability creates stress requiring increased energy outputs and complex decisions regarding meeting the needs of individual family members (Bubolz &

Whiren, 1984). If they are to be effective, then policy and services must link carefully into the values, resources and decisions of the family. As Powers (1988) suggested, "discrepancies between the client's perception of need and that of change agents can impede the progress of new programs" (p. 7). Where successful linkages are not made between family needs and professional services, the result may be a patchwork approach to integration that is both expensive and ineffective (Salzinger, Antrobus, & Glick, 1980). Parents seeking integration want mainstream classrooms and generic services for their children. Offering them a revamped special education service is to misunderstand their needs.

A basic concept in general systems theory is the fundamental integrative device, the feedback loop (Schwartz, 1980). Negative feedback loops, in particular, are important for maintaining the stability of a system. Where these are attenuated, then disorder (or disregulation) results (Schwartz, 1980). Applying the self-regulating models of cybernetic theory to human activity is complex because feedback is "mediated through social behavior" (Salzinger, Antrobus, & Glick, 1980, p. 50). Nevertheless, it might be anticipated that a system such as special education in New Zealand that ignores (or avoids) inputs that challenge its operations (rationale, values, organisation) might eventually experience severe tensions and dysfunctional interactions with elements external to itself.

Examination of systems issues shows that, despite the best efforts of special educators to deliver special services, parents of children who have disabilities continue to experience stress and rejection in ordinary school and community settings. This suggests that for as long as children are special then some of our schools will not want to own them. As Colleen Brown writes,

> The list [of systems problems] seems endless to the embattled parent. New tactics and strategies have to be thought up to counter the moves made by the opposition. It is a contest, often exhausting to the parent, tiresome and petty. Parents have had to organise themselves into support groups because what the public has had to realise is that we are survivors and what is more we are the only people who are going to actively seek justice for our children. (1990, p. 26)

Special educators are not listening to these parents. Within its subculture, special education interprets parent involvement as a set of activities (e.g., IEP meetings, teaching) often structured by professionals and usually devised from a model that identifies the child as the target of intervention (rather than a classroom or curriculum). The IEP process can result in psychologists and other professionals exerting influence on child activities in family, school and community settings, in the name of ecological assessment (e.g., Martin, 1988). A collateral outcome of such surveillance may involve the signal to teachers and others that this child is different and possibly beyond their skills and responsibility. Introducing the curative agent (specialist) indicates to the school that the child's needs are beyond their resources and further distances the school from responsibility and ownership of that child (see Martin, 1988; Schwartz, 1980). The evidence that mainstream teachers do cope, once they accept ownership of all children (e.g., Ballard, Ballard, & Van der Vyver, 1989; Ballard, Morton, & Van der Vyver, 1988; Porter, 1988), strongly supports the economic and social need for special and mainstream education to be merged. Continuing with separate special education and related services will generate increasing disillusionment and anger among parents whose children are trapped in a "treatment model" (Biklen, 1988), threatening the credibility and integrity of the special education system.

Toward Systems Change and Non-restrictive Environments

Changes within the present paradigm of regular and special education may be of limited benefit to children who have disabilities. The system will continue to segregate some of them and prevent mainstream education from changing to meet the needs of all children. A more radical change in our perceptions of disability and the organisation of education is required.

School systems in a number of democratic countries are examining their goals and purpose. In doing this they are recognising that over the years they have devised a curriculum based on a particular set of social values relating to the economic structures of their society and the views of teachers as to who is worthy of their services. This means that we have not catered well for people with disabilities; for people from ethnic minorities; or for people whose value system (for example, derived from different socioeconomic positions) is different from that expressed in curriculum development in the school system (Barton, 1988; Meyer, in press).

Wolfensberger (1988a, 1988b) suggested that people we label "retarded" are viewed as not contributing to economic growth and production. They are, therefore, viewed largely in terms of their deficits, coming to represent a "societally devalued class in whose devaluation one is at least partially participating" (1988b, p. 70). Psychologists, their work "inextricably bound to the values and beliefs of society as a whole" (Blatt, 1987, p. 7), have used dominant cultural values to label people with intellectual disabilities as incompetent (Freeman, 1988). Society has then organised agencies and institutions to manage and cater for people with disabilities, ensuring that they are dependent on services designed specifically for them and are removed from the mainstream of community life (Bart, 1984).

For people who have disabilities the reality is different. Julie Messenger (1989), chairperson of a People First group in the North Island, says that in her area

> People First teach the staff what it's like for people with intellectual disability, and how we want to be treated ... We believe that if the community gives us a chance, they will see that we are just ordinary people—individuals who have the right to be respected and listened to. (p. 8)

For many parents the reality is described by one mother who said to us:

> I want to be a normal parent. I don't want to be grateful that my child is in school. I want to do the normal parent things like go to the pet show ... (but) you have to be very assertive so that teachers will have your child ... Basically, you've got to crawl. (personal communication, November 8, 1989)

Systems change involves changes in legislation, policies and strategies. Most critical, however, is to change the perceptions of the people who comprise the systems. Objects, people and situations do not "produce their own meaning," rather "meaning is bestowed on them" as we "actively engage in the creation of reality" (Bogdan & Kugelmass, 1984, p. 182). The fact that categories of disability are redefined across time (e.g., the American Psychological Association statistical redefinition of mental retardation in 1973) and vary by social settings and ethnic group (Wunsch-Hitzig, Gould, & Dohrenwend, 1980) supports the idea that disability is a social phenomenon rather than an objective and randomly occurring medical or psychological condition (Archer, 1984). We create reality in association with others who share similar definitions, developing a subculture of common language, ideas and perceptions. If disability is created socially, then we have to change our perceptions socially.

Changing realities, therefore, can be achieved by introducing people to the successful integration experiences already evident in many communities. We may then, as Colleen Brown says,

> Let the children go freely into the neighbourhood, support the endeavours of the teachers and parents, let mainstreaming become a reality. If we don't take up the challenge then maybe parents will be forced to agree with Daniel Day Lewis who said of his portrayal of disabled Christie Brown in the film My Left Foot, "I think the best thing you can hope for is that it just shifts peoples' perceptions. Because there is a part of us that is still primitive enough for us to want people to be left out on the mountainside ... just left for the crows." (1990, p. 26)

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References

Archer, M. (1984). Foreword. In L. Barton & S. Tomlinson (Eds.), *Special education and social interests* (pp. i–iii). London: Croom Helm.

Ballard, K.D. (1988). Toward the non-restrictive environment. In Ashman, A.F. (Ed.) *Integration 25 years on* (The Exceptional Child Monograph No. 1) (pp. 7–18). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Ballard, K.D. (1990). Special education in New Zealand: Disability, politics and empowerment. *International Journal of Disability, Development and Education, 37*, 109–124.

Ballard, K.D., Ballard, P., & Van der Vyver, R. (Producers). (1989). *A school for everyone: Teaching and disability at Forbury School* [Videotape program]. Dunedin, NZ: Audio Visual Production Unit, University of Otago.

Ballard, K.D., Barnett, J., & Van der Vyver, R. (Producer). (1987). *Parent views on services for children who are handicapped* [Videotape program]. Dunedin, NZ: Audio Visual Production Unit, University of Otago.

Ballard, K.D., Morton, M., & Van der Vyver, R. (Producer). (1988). *Mainstreaming.* [Videotape program]. Dunedin, NZ: Audio Visual Production Unit, University of Otago.

Bart, D.S (1984). The differential diagnosis of special education: Managing social pathology as individual disability. In L. Barton & S. Tomlinson (Eds.), *Special education and social interests* (pp. 81–121). London: Croom Helm.

Barton, L. (1988). Research and practice: The need for alternative perspectives. In L. Barton (Ed.), *The politics of special educational needs* (pp. 79–95). London: The Falmer Press.

Barton, L., & Tomlinson, S. (1984). The politics of integration in England. In L. Barton & S. Tomlinson (Eds.), *Special education and social interests* (pp. 65–80). London: Croom Helm.

Biklen, D. (1985). *Achieving the complete school: Strategies for effective mainstreaming*. New York: Teachers College Press.

Biklen, D. (1988). The myth of clinical judgment. *Journal of Social Issues, 44*, 127–140.

Blatt, B. (1987). *The conquest of mental retardation.* Austin, Texas: ProEd.

Bogdan, R., & Kugelmass, J. (1984). Case studies of mainstreaming: A symbolic interactionist approach to special schooling. In L. Barton & S. Tomlinson (Eds.), *Special education and social interests* (pp. 173–191). London: Croom Helm.

Booth, T. (1988). Challenging conceptions of integration. In L. Barton (Ed.), *The politics of special educational needs* (pp. 99–122). London: The Falmer Press.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1988). Foreword. In A.R. Pence (Ed.), *Ecological research with children and families: From concepts to methodology* (pp. ix–xx). New York: Teachers College Press.

Bronfenbrenner, U., & Crouter, A.C. (1983). The evolution of environmental models in developmental research. In P.H. Mussen (Ed.), *Handbook of child psychology: Vol. 1. History, theory and methods* (4th ed., pp. 357–414). New York: Wiley.

Brown, C. (1990, April 29). Fight for children left for crows. *Dominion Sunday Times*, p. 26.

Bubolz, M., & Whiren, A. (1984). The family of the handicapped: An ecological model for policy and practice. *Family Relations, 33*, 5–12.

Department of Education. (1987). *Draft Review of Special Education.* Wellington: Author.

Freeman, A. (1988). Who's moving the goal posts and what games are we playing anyway: Social competence examined. In L. Barton (Ed.), *The politics of special educational needs* (pp. 123–144). London: The Falmer Press.

Homans, G.C. (1951). *The human group*. London: Routledge & Kegan Paul.

Hunt, P., Goetz, L., & Anderson, J. (1986). The quality of IEP objectives associated with placement on integrated versus segregated school sites. *Journal of the Association for Persons with Severe Handicaps, 11*, 125–130.

Krauss, M.W. (1990). New precedent in family policy: Individualized family service plan. *Exceptional Children, 56*, 388–395.

Martin, A. (1988). Screening, early intervention and remediation: Obscuring children's potential. *Harvard Educational Review, 58*, 488–501.

Meyer, L.H. (in press). Advocacy, research and typical practices: A call for the reduction of discrepancies between what is and what ought to be and how to get there. In L. Meyer, C. Peck & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities*. Baltimore: Paul H. Brookes.

Miller, C., & Swift, K. (1976). *Words and women: Language and the sexes*. Middlesex: Penguin Books.

Mitchell, D. (1987). Special education in New Zealand: An historical perspective. In D.R. Mitchell & N.N. Singh (Eds.), *Exceptional children in New Zealand* (pp. 26–38). Palmerston North: Dunmore Press.

Messenger, J. (1989, November). People First: A self advocacy group. *People First, 1*, 7–8.

Oliver, M. (1988). The social and political context of educational policy: The case of special needs. In L. Barton (Ed.), *The politics of special educational needs* (pp. 13–31). London: The Falmer Press.

Porter, G.L. (1988). *The method and resource teacher: A collaborative consultant model. A case study of the perspectives of teachers working in that role in School Districts 28 & 29. Woodstock, New Brunswick* (Research Report). New York: Syracuse University.

Powers, M.D. (1988). A systems approach to serving persons with severe developmental disabilities. In M.D. Powers (Ed.), *Expanding systems of service delivery for persons with developmental disabilities* (pp. 1–14). Baltimore: Paul H. Brookes.

Reger, R. (1972). The medical model in special education. *Psychology in the Schools, 9*, 8–12.

Rietveld, C. (1989). *An evaluation of 7 to 12 year old children with Down's Syndrome in home and school settings: A follow-up study of children from the Christchurch Early Intervention Programme* (Research Report No. 89-1). Canterbury, NZ: Education Department, University of Canterbury.

Salzinger, S., Antrobus, J., & Glick, J. (Eds.) (1980). *The ecosystem of the "sick" child: Implications for classification and intervention for disturbed and mentally retarded children*. New York: Academic Press.

Schwartz, G.E. (1980). Stress, drugs and the promotion of disregulation in children. In S. Salzinger, J. Antrobus & J. Glick (Eds.), *The ecosystem of the "sick" child: Implications for classification and intervention for disturbed and mentally retarded children* (pp. 49–75). New York: Academic Press.

Skrtic, T.M. (1986). The crisis in special education knowledge: A perspective on perspective. *Focus on Exceptional Children, 18*, 1–16.

Smith, L. (1990, April 21). Reported in *Otago Daily Times*, p. 9.

Taylor, S.J. (1988). Caught in the continuum: A critical analysis of the principle of the least restrictive environment. *Journal of the Association for Persons with Severe Handicaps, 13,* 41–53.

Turnbull, A., & Turnbull, H. (1978). *Parents speak out. Views from the other side of the two way mirror.* Columbus, OH: Charles Merrill.

Warnock, M. (Chairperson) (1978). *Special educational needs. The Report of the Committee of Enquiry into the Education of Handicapped Children and Young People.* London: HMSO.

Withers, R., & Lee, J. (1988). Power in disguise. In L. Barton (Ed.), *The politics of special educational needs* (pp. 175–189). London: The Falmer Press.

Wolfensberger, W. (1988a). Reply to "All people have personal assets". *Mental Retardation, 26,* 75–76.

Wolfensberger, W. (1988b). Common assets of mentally retarded people that are not commonly acknowledged. *Mental Retardation, 26,* 63–70.

Wood, S. (1988). Parents: Whose partners? In L. Barton (Ed.), *The politics of special educational needs* (pp. 190–207). London: The Falmer Press.

Wunsch-Hitzig, R., Gould, M.S., & Dohrenwend, B.P. (1980). Hypotheses about the prevalence of clinical maladjustment in children in the United States. In S. Salzinger, J. Antrobus & J. Glick (Eds.), *The ecosystem of the "sick" child: Implications for classification and intervention for disturbed and mentally retarded children* (pp. 19–30). New York: Academic Press.

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CHAPTER 4

Integration of Children with Physical and Intellectual Abilities Into Support (Special) Classes Attached to Regular Schools

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While the impetus for the integration of children with disabilities into regular schools first derived from a moral imperative, there is now almost universal belief that the process will result in more effective education for all but the most severely handicapped students. However, there has been no consensus about the relative merits of special class or regular class as integration options for students with moderate disabilities. Different school systems (e.g., those in NSW or Victoria) appear to accept or eschew special class provisions more from philosophic orientation than from any systematic research base. This is not surprising when even the seminal meta-analytic study of Carlberg and Kavale (1980), suggesting that the regular class was a better educational option for children with intellectual disabilities while special class was superior for children with emotional or learning difficulties, has come under recent methodological attack (Danby & Cullen, 1988).

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It appears that efficacy research based on a strict experimental model is inappropriate to assess the complexities of classroom interactions for individual students with disabilities (Hamilton, 1977; Hammersley, 1986; Hegarty & Evans, 1985). It is extremely difficult to isolate class placement as the only dependent variable within the heterogeneity of the population and the classrooms being studied. Qualitative research, on the other hand, cannot answer the comparative question of the better educational option—special class or regular class. In view of this methodological impasse, Danby and Cullen (1988) have suggested that the research techniques to be used may have to depend on and be sensitive to the questions that researchers are seeking to answer.

An approach, based on this suggestion, has been adopted in the present study. As the NSW Department of School Education is committed to both regular and special class placement as alternative integration options for students with disabilities (Metherell, 1989) an efficacy study was not considered appropriate. The questions that needed to be addressed concerned the effective practice and organization of both sets of placements, so that it would be possible to highlight those factors responsible for successful integration in either setting. A multiple case study methodology together with the inclusion of certain quantitative procedures (Mittler, 1985; Sadler, 1985) was selected as likely to produce data which would be of most direct relevance to all those concerned in the integration process—children, peers, parents, school personnel and administrators. This paper describes both procedures and results for special class students only while those for mainstream classes have been presented elsewhere (Center, Ferguson, & Ward, 1988; Center, Ward, Ferguson, Conway, & Linfoot, 1989).

Aims

This study attempts to produce basic data via the multiple case study method, about the quality of the educational, social and integration experiences of a sample of children with physical and intellectual disabilities who are currently enrolled in special classes attached to regular schools. It also aims to identify the factors relevant to child/family, classroom and school which are associated with successful academic and social integration for these students.

Methodology

The Sample

A small sample of 20 students enrolled in classes for students with a physical handicap (P), a mild intellectual disability (IM) or a moderate intellectual disability (IO) were selected at random by integration officers from both metropolitan and country schools. However, while the mainstream study focused solely on the child with disabilities in the regular class, this study uses both the child and the support class itself as the unit of analysis.

Table 1 shows the total number of support classes in the NSW School system and the sample observed in this study.

Table 1. NSW Primary Support Classes (1988)

	Metropolitan		Country		Total	
	All	Sample	All	Sample	All	Sample
P classes	4	4*	1	1	5	5
IM classes	89	3	90	2	179	5
IO classes	31	4	26	6	57	10
Total					241	20

*This represents only 3 schools as 2 children attended the same school.

Observational procedures

Six observers in metropolitan and country regions spent approximately 6 to 8 days in each school collecting a variety of qualitative and quantitative data on each child/family, classroom and school. The three main sources of data included: (a) detailed qualitative observations of the child in both the classroom and playground; (b) quantitative measures such as basic skill assessments, observational schedules, daily record schedules, rating forms, questionnaires, self-report inventories and sociometric techniques to assess the total learning environment of the student; and (c) interviews with all relevant school personnel, parents and selected peers.

Instrumentation

As far as possible the instruments that had been trialled in Stage 1 of the mainstream study (Center et al., 1988) and modified for Stage 2 of the mainstream study (Center et al., 1989) were used in the support/special class study. However, some adaptations had to be made because of the nature of the population studied and the fact that both child and support class were used as the unit of analysis.

Child measures

In order to measure the scholastic progress of the target children in support classes, each class was administered norm-referenced and criterion-referenced tests in reading accuracy, reading comprehension, maths computation and maths problem solving skills, both in April and November.

For measures of *reading competence* the Revised Form of the Neale Analysis of Reading Skills (Neale, 1988) was used where possible and the Macquarie Special Education Centre Written Word Attack Skills or the AAMD Adaptive Behaviour Scales (Leland, Shoaee, & Vayda, 1975), in the case of students for whom the Neale test was inappropriate. Computational skills were assessed by a criterion-referenced test devised specifically for Stage 2 which could be administered at all levels of primary school and in low-streamed Year 7 high school classes. In some junior IM and IO classes it was necessary to use Macquarie University Special Education Centre Mathematics tests for first/second grade or the AAMD Adaptive Behaviour Scales when students failed to score on the more advanced criterion-referenced mathematics test.

Parents' and teachers' ratings of the student's academic progress were also obtained during relevant interview sessions. The target child's time-on-task in basic skills (using an interval sampling observational schedule adapted from Larrivee, 1985) was also assessed. In addition, observers rated the appropriateness of the curriculum for each target child and time spent on academic skills was also noted. All academic measures obtained in this way became the components of the child's Academic Integration Index.

The *social acceptance* of the students in support classes was generally assessed by means of a modified sociogram (based on Moreno, 1934) rather than by the more complex Perception of Closeness Scale (Larrivee, 1985) used in the mainstream study. Teachers' ratings of the social progress of the target children as well as their classroom behaviour were also obtained. Parents' opinions of their children's social/emotional progress and descriptions of out-of-school activities were also elicited in the parent interview. In addition, observations of the target children's behaviour in the classroom, and interactions with both regular peers and classmates in the playground, were also taken. All social measures obtained in this way became the components of each child's Social Integration Index.

Classroom measures

The rationale for the classroom measures finally selected for inclusion in this study can be found elsewhere (Center et al., 1988; Center et al., 1989). The main classroom observational schedule used was an adapted form of the Observer Rating Scale (Larrivee, 1985) which gave measures of class climate, teacher's instructional style, teacher's management skills and levels of independence granted to students. A Daily Record Form devised specifically for the study, which recorded the daily teaching strategies of teachers in basic skill areas provided additional data on classroom procedures. Questionnaires and interview schedules were used to provide information on any instructional variables that were not covered by the observational schedules and to probe some aspects of classroom practices in more depth. In addition, a specific questionnaire for support class teachers was also developed to gauge the role and responsibilities of the support class teacher within the regular school, the degree and forms of support provided to the teacher by the school executive and the degree of participation by the class, as a whole, in the wider activities of the school. A second teacher questionnaire was designed to determine the extent, variety, duration and perceived effectiveness of the participation by both the target child and other members of the class in integrated activities. Questions concerning the role of the support class and advantages/ disadvantages with regard to special schools were included for discussion in interviews with principals, support class teachers and parents. All measures dealing with the individual child's and whole class's integrated activities became components of the Integrated Activities Index.

School measures

Data from attitudinal studies on integration (Center & Ward, 1987; Center, Ward, Parmenter, & Nash, 1985; Thomas, 1988) indicate that a major concern of teachers relates to the support services with which they are provided. Thus it was considered important to obtain an indication of both the amount and appropriateness of resource provision for each support class child. The actual amount of resource support (in hours) for each target student was recorded, while appropriateness was rated on a 4 point scale by principals, teachers and observers, with the latter rating being given a heavier weighting in the final adjusted score. Another variable which proved to be associated with integration success in Stage 1 was *school ethos*, as measured by attitudes of principals and other staff members, which were assessed subjectively by each researcher on a 5 point scale through observation and discussions with parents and general school staff. Thus, *amount* and *appropriateness* of *resource support* together with *school ethos* (general staff attitudes to integration) were the main school measures selected.

Procedures

Prior to the observation period in each school, all researchers spent one week together to establish reliability on the observational schedules used in this study. Reliability figures of 85–90% agreement were obtained for the Observational Record Schedule, the Time-on-Task Observational Form, the Daily Record Form and the Playground Observation Schedule.

Compilation of Data

All academic, social and integration measures obtained for the target children, through direct testing, observation schedules, and teacher/parent ratings from questionnaires and interviews were recorded separately to establish three discrete indices.

While the addition of objective direct measurements/observations and more subjective ratings may be criticized, it is one of the few methods of avoiding "snap-shot" measures that time-sampling techniques, on their own, tend to engender. In addition, Cronbach alphas of .61 and .72 recorded for similar academic and social measures respectively for the mainstream sample suggest that the indices measured a conceptually valid domain. Finally, removal of the more subjective ratings from the total score of the mainstream students indicated very little variation from their Total Integration Index. Consequently it was considered legitimate to include both measured and rated components in the Academic/Social Index (see Appendix).

All components of the indices were summed and expressed as a percentage of the total possible score. The three discrete indices were also summed and averaged in order to obtain an Index of Successful Placement.

Based on minimum and maximum scores, the following cut-off points were established for the Academic Index, the Social Index, the Integrated Activities Index and the Total Index of Successful Placement.

80-100%	Indicates very good academic/social progress, a most appropriate level of integrated activities, both academically and socially, and a highly successful Index of Placement.
60-80%	Indicates a marginal to satisfactory level for all indices.
33-40%	Indicates an unacceptable level for all indices.

A Validation Index, which was the estimate of appropriate placement by the observer and all persons involved with the child's education, was also computed. For children in support classes, however, the Validation Index must be treated critically, since it will be low if either a special school or a total mainstream placement is favoured as an option. Consequently, if a child is performing relatively well in the special class situation, a low Validation Index may sometimes reflect the need for transfer from special class to regular class placement.

Results—Students with Physical Disabilities

Five students enrolled in support classes for students with physical disabilities (P classes) were included in the study. Descriptive data for these students is presented in Table 2. Three of the students (Cases 26, 27 and 62) had previously attended special schools and had moved to newly established units at the beginning of 1988. The remaining two children (Cases 33 and 73) were enrolled in well-established units and had not previously attended a special school. In one of these schools (Case 33), however, the unit had been closed on a trial basis and the students placed within a regular class for the year, with support provided by the former unit's two teachers. Thus, this student was a fully mainstreamed student at the time of observation and is, therefore, more appropriately compared with students described in the mainstream study (Center et al., 1989). This difference must be borne in mind when examining the data presented in Table 2.

These results present a somewhat variable picture in relation to the sample of students in P classes, which derives from the fact that there were two distinct groups in this sample. Three students (Cases 26, 62 and 73) spent the bulk of their time in the units, whereas two (Cases 27 and 33) were fully or almost fully mainstreamed. The mean results for the group in both the academic and the integrated activities indices are inflated by the data obtained for the two latter students.

Consequently, it appears that the three students who were receiving their academic instruction within the support class were making somewhat slower academic progress (which can only be described as marginal) than their counterparts in the mainstream. To some extent, this is associated with their greater physical and/or intellectual limitations. It also reflects, perhaps, the problem of obtaining an adequate time allocation for basic skills in classes where students require a high level of 1:1 assistance, and where time must also be devoted to therapy sessions. In addition, it must be noted that, for

Table 2. Summary Percentage Data on Students in Support Classes—P Units

Case No.	Academic Integration Index	Social Integration Index	Integrated Activities	**Index of Successful Placement**	**Validation Index**	Structured Teaching Style	Class Management	Resource Support
26[1]	63	83	53	**67**	**80**	83	100	73
27[2]	80	95	85	**87**	**70**	27	52	70
62	65	88	68	**74**	**90**	83	100	73
73[1]	65	83	53	**67**	**75**	85	89	68
33	95	83	98	**92**	**95**	75	94	95
MEAN (*n*=5)	68.3	87.3	64.8	**73.1**	**81.3**	69.5	85.3	70.5

[1] Marginal successful placement

[2] Anomalous placement

these three students, the amount of time spent in integrated activities with the regular school was also somewhat limited. However, the social progress of all five students in the sample was highly successful. This, no doubt, would account for much of the satisfaction for support class placement represented by the mean Validation Index of 81.3%.

A closer examination of case study data provides further insights into support class placement for children with physical disabilities. Case 33, for example, highlights the full extent of mainstreaming that is possible when a P unit is incorporated within a regular school. This child attended a unit which had initially existed very much as an isolated entity within the regular school with very little interaction between the two departments. However, barriers had been progressively removed to the point where, in 1988, all students within the two support classes had been placed in mainstream classes with support being provided by the unit staff. Although there were some concerns about total mainstreaming for all former unit students, it was considered in the best interests of most students, including the target child. The high Validation Index for this child, therefore, reflects the general view that she should continue in a mainstream class.

Another child (Case 27) was also being very effectively mainstreamed for most academic and non-academic activities from her P unit. This 10-year-old girl was wheelchair bound and required special toileting but had almost normal upper limb function, good speech and an average IQ score. She had previously attended a special school located some distance from her home because her nearest neighbourhood school had refused to enrol her on the grounds that she needed the extra resources of a special school. She was now able to return to a regular school in her own region since a special support class attached to that school had been established earlier that year.

Because of her normal speech and intellectual ability, this student was able to take maximum advantage of the opportunities for both academic and social integration afforded by her move to the support unit. Furthermore, her inclusion in the mainstream as quickly and as fully as possible was facilitated by the executive teacher of the support unit who was the assistant principal of the regular school. Thus, the low Validation Index obtained for this student did not reflect a lack of satisfaction with her current placement but, rather a widespread belief that she should be fully mainstreamed in the near future. In the short term, however, support class placement has facilitated the move from special school to regular class.

For another student (Case 62) full-time mainstreaming appeared to be rather a more distant goal. Nevertheless, the move from special school to support class had also afforded many more opportunities for meeting with his regular peers. From the social viewpoint, the move was considered to have been a success (Social Index: 88%), even though his academic progress within the unit and participation in integrated academic activities was only marginal (see Table 2). A moderate/severe degree of cerebral palsy in all four limbs made this student very dependent on aide assistance. Oral communication was difficult because of oral musculature involvement and all written work required an electric typewriter. Thus, as far as the mainstream staff was concerned, his participation in integrated academic activities was constrained by his physical limitations. As this unit had only been recently established, its executive teacher had not yet developed the credibility needed to organise appropriate academic integration. Nevertheless, both his parents and support class teacher believed he could benefit from a greater degree of academic integration than had been offered at the time of observation, although, as his high Validation Index indicates, support class placement was generally considered his best option.

The two students with the lowest total indices (Cases 26 and 73) were also considered by parents and staff to have benefited socially from their placement in a support class. However, their opportunities for participation in integrated activities were even more limited than the cases already discussed and their academic progress was only marginal (see Table 2). Case 76 involved a student with severe cerebral palsy, but with a normal level of intelligence. This student acquired ongoing access to sophisticated technology and 1:1 assistance for most academic activities. Consequently, he was not considered to be a serious candidate for academic integration, even though it could be argued that he could benefit more from attending discussion-based lessons such as social studies than token and inappropriate participation in craft. Interactions with children in his neighbourhood were also inhibited both by the severity of his physical condition and the distance of the P unit from his home. In the case of this student, the move from special school had neither reduced his travelling time nor given him access to a more "local" school. However, once mainstream staff see the value of his inclusion in grade-appropriate lessons, support class placement will be doubtless seen as a better option to special school by his parents and teacher.

In Case 73, on the other hand, the student's limitations stemmed from the fact that a mild-moderate degree of cerebral palsy was combined with a moderate intellectual disability. The latter considerably reduced her opportunities for academic integration (Index = 53%) as appropriate support was not available. Moreover, her intellectual disability also limited social interactions with her peers from regular classes. Furthermore, her academic needs were probably not as well addressed in a P class as they would have been in an IM or IO class, since units for the physically disabled are not necessarily suitable for children with a moderate degree of intellectual disability. This placement dissatisfaction is reflected in the rather low Validation Index of 75 and in a general decision to send the student to the local special school for his high school education. For such students, a blurring of the present categorical distinction between P and IM/IO classes could prove beneficial so that services in support classes could be matched to individual physical and educational needs. These services should be carried through to high school level so that such students have an alternative to a special school for their secondary education.

Summary

Despite the diversity of their problems, all 5 students were considered to have benefited to some degree from a period of placement in a support class (P) For some, these classes are providing the opportunity for progression into regular classes, while still giving pupils and class teachers back-up support from the unit staff on site at the local school. For others, whose physical limitations make full-time mainstreaming a more elusive prospect, the support classes, nevertheless, provide far more opportunities for social integration with non-disabled peers, particularly where such activities are planned and monitored rather than being left to chance. In addition, participation in grade-appropriate aural lessons in the mainstream would provide educational opportunities that may be denied to competent students in special schools. However, the current practice of integrating support class students in non-academic lessons, such as craft (rather than in social science, for example), tend only to exacerbate their physical difficulties without exposing them to valuable academic content. For those with an intellectual as well as physical disability, the provision of appropriate curricula and the use of specialised teaching techniques are as important as the provision of therapy services if these students are also to benefit from placement in support classes.

Although ongoing access to therapy services is necessary for many students with physical disabilities, this must be balanced by the provision of adequate instructional time if they are not to become educationally disadvantaged. Hence, carefully planned timetabling of therapy sessions is essential to ensure minimal disruption to academic work. Furthermore, it is also necessary for therapy staff to consult within the mainstream in order to maximise both social and academic interaction.

Another issue highlighted by these case studies is the need for appropriate support staff to students who are partially mainstreamed for academic subjects. Even when of average or above average intelligence, these students often function below grade level in basic subjects. Unnecessary strain is placed both on teacher and student if such assistance is not provided—either by an appropriately qualified support teacher (learning difficulties) or by the staff from the support class (if they have the necessary expertise in special education). One of the major advantages of specialised staff attached to units is that they can provide support not only to support class children within the mainstream but also to those regular pupils who are having academic or social difficulties. This role is easier to implement, perhaps, when the executive teacher in charge of the unit comes from the regular school staff (as seen on one site), rather than from the unit staff, who must first gain credibility within the regular school. In addition, as in all mainstreaming situations, a strong commitment by total school staff to the concept and practice of integration is vital and should be one of the prerequisites for locating a special support unit on the site of a regular school.

Furthermore, if support classes are to function effectively, they should not be located in places too distant from the homes of their clients.

Results—Students with Mild Intellectual Disabilities (IM classes)

The majority of children with mild intellectual disabilities in NSW are in regular classes. A proportion, however, are referred for special class placement, traditionally at about Grade 3 level, although transfers from Grade 2 are also being undertaken. These referrals tend to be those children who fall within the mild range of intellectual disability and who are not progressing in the regular class. Typically, many students enter IM classes as non-readers or with only minimal competencies in reading and maths, and some may also be deficient in social skills.

IM classes have a maximum of 18 students who may be drawn from a number of schools in the "catchment" area. Not all teachers of IM classes have training in Special Education and, generally, no teacher aide support is available (although, some classes make good use of volunteers) For some students, an IM placement may be viewed as an opportunity for an intensive "catch up" period so that they may return to a regular class better equipped to "cope". For many others, however, the placement may be long-term and, perhaps, continue into high school.

Of the five students from support classes (IM) who were included in Stage 2, two were from country regions and three from the metropolitan regions. Descriptive data for these students are presented in Table 3.

The needs of three of these students (Cases 34, 49 and 68) appear to have been well-served by placement in an IM class (refer Table 3): all three are considered to be making satisfactory progress in all areas—and to be participating in a wide range of integrated activities. This success is reflected in a very high Validation Index for each of the three, indicating general agreement as to the present appropriateness of the placement and its continuation. Case 69 represents the only unsuccessful placement in the sample, while in Case 3, a low Validation Index indicates he would be more appropriately accommodated elsewhere.

The most effective IM placement in this small sample is clearly Case 68. Although the teacher in this class was well above the average in the use of a highly structured approach to teaching, the most striking factor is her very high score in terms of classroom management techniques (98%) compared with a mean score of 52% for all IM teachers in the sample. Analysis of the more detailed case study data suggests that this difference does not reflect different student characteristics but rather the impact of a particularly highly skilled and trained teacher.

Another factor which appeared to contribute to the very effective social integration of this student was the fact that the class was largely "school based": almost all the students in the class came from the "host" school itself and, thus, were always considered very much part of the school community. In addition, the teacher (who was the executive teacher, with responsibility for three other support classes) had a very high level of credibility within the

Table 3. Summary Percentage Data on Students in Support Classes—IM Units

Case No.	Academic Integration Index	Social Integration Index	Integrated Activities	**Index of Successful Placement**	**Validation Index**	Structured Teaching Style	Class Management	Resource Support
3[1]	83	80	77	**80**	**70**	74	22	38
34	78	75	83	**79**	**95**	85	47	25
49	82	88	78	**83**	**100**	52	59	35
68	98	97	85	**93**	**95**	81	98	60
69[2]	73	68	57	**66**	**55**	63	34	35
MEAN (*n*=5)	82.8	81.6	76.0	**79.8**	**83.0**	71.0	52.0	38.8

[1] Anomalous placement

[2] Unsuccessful placement

school, as a whole, and had worked hard to increase both the awareness and acceptance of the whole school of students with disabilities. Her high credibility extended also to Regional level, where she had made major contributions to staff development in the area of integration.

The success of Case 68 may be contrasted with Case 69, where the class had only been established for one and a half years and all the students came from other schools. This teacher believed that both she and her students were only marginally accepted at the school and she had not been given any opportunities (as yet) to become involved in wider duties within the school. The children within the class tended to play mainly with each other. Their isolation was accentuated by the location of their classroom—on its own, in an older wing of the school—and by the lack of a carefully planned integration program. The only student to be integrated for academic subjects was the target student who attended a small reading group in the resource room with children from a regular Grade 5 class. Although all members of the class attended integrated sporting activities at their appropriate grade levels, the regular teachers observed in charge of these sessions did not appear to know how to ensure meaningful participation by the IM students.

The target child in this class, an 11-year-old with Down Syndrome, had spent time in both regular and special classes since commencing school. In the year prior to the study, he had been successfully placed in a regular Grade 4, with some support from a support teacher (learning difficulties) in the area of reading. After the first few weeks in Grade 5, however, he had been returned to the IM class. The reasons given by the school (and confirmed by both the school counsellor and the child's mother) were that: (a) the class sizes were much bigger than in the previous year; (b) the teacher had high academic expectations for the class and believed that the placement of a child with Down Syndrome in that class was inappropriate; and (c) no special funds were available to support his integration.

All school personnel, therefore, believed that the IM class was the best solution under the present conditions and the child, himself, expressed satisfaction with that class. He continued to attend a small reading group with children from the regular class, taught by the support teacher (learning difficulties) as his reading age (being close to his chronological age) placed him well above the other students in the IM class.

The data on this student suggest, however, that the IM class was not meeting either his academic or social needs very effectively. Although the target student's progress in academic areas was somewhat greater than in other areas, this appeared to be limited by a high level of total class off-task behaviour, accentuated by the teacher's inability to manage several children who displayed difficult (and, at times, even bizarre) behaviours. With the exception of the support class teacher, all persons involved with this child's education recommended that he, therefore, be returned to a mainstream class as soon as possible. The school staff, however, believed that, in view of the large class size, this would not be possible unless additional resources were available to support that placement. Negotiations were underway with the

Regional Integration Officer but the eligibility of the school for additional support for this placement was not clear.

In Case 3, questions were also being raised concerning the most appropriate class placement. Although this student appeared to be making satisfactory progress and was well integrated in a number of social activities, his teacher believed that he would benefit from spending more time in a regular class, prior to his progression to high school in 1989. Both the teacher and principal recommended that this student be transferred to a regular class on his enrolment in high school in the following year.

Case 34 is interesting, in that this student had moved to a support class only at the beginning of the year and had been included in the Stage 1 Study as a mainstreamed student. The transfer had been arranged because (a) the student had not been coping with an (unmodified) third grade curriculum, (b) the teacher did not have the skills to provide an appropriate curriculum for the student, and (c) no in-class support was available from either within the school or from the Region. Although some problems were evident in his present IM class because it included several children with behavioural problems, the academic needs of this student did appear to be better catered for in the IM class than in an (unsupported) mainstream placement. When appropriate support is not provided to an inexperienced regular teacher, then the modified curriculum and greater individualisation which can be provided in a smaller support class appears to be more advantageous for a child with intellectual disabilities.

Summary

Although four of the five students sampled from IM classes were generally considered to be making satisfactory progress in most areas, these data cast some doubt on current policy regarding IM classes. The inclusion of students with behavioural problems in a class of 15–18 students with a wide range of academic needs, coupled with no additional support, creates a generally stressful situation for students. Maximal effectiveness under these conditions appears to be possible only through the provision of a very highly trained and experienced teacher. For most teachers, even with special education training, a higher level of support and a more rigid selection procedure (to eliminate students with severe behaviour problems) is necessary to ensure a more educationally effective IM class. Furthermore, social integration of these students can be enhanced when: (a) classes are located in their own neighbourhood school; (b) the class and teacher are accepted fully by the other school staff and students as an "integral" part of the school; and (c) integrated activities are carefully planned and monitored to ensure maximum participation by, and benefit to, the IM students.

The lack of appropriate academic support to students from IM classes who are being partially or fully mainstreamed is a constraining factor in returning an IM student to the regular class. The IM teacher, who already has a very demanding role in meeting the diverse needs of the rest of the class, is unlikely to be able to offer much direct support, herself, unless all of her students are being mainstreamed and, thus, additional resources may be necessary.

While the teachers in this sample of IM classes tended to use structured teaching strategies to much the same extent as those in the sample of IO classes, there was a significant difference in their "classroom management" scores (see Table 4). With one notable exception (Case 68), these teachers scored well below the IO teachers in this area. This difference does not appear to reflect a difference in training as 80% of both groups had qualifications in special education (usually at postgraduate level) but rather the class population and ecology; the larger size of the IM classes (15–18 compared with 6–9), the absence of teacher aide support and the presence of children with behavioural problems in the IM classes who need specific management strategies.

Results—Students with Moderate Intellectual Disabilities

The number of support classes for students with moderate intellectual disabilities (IO) has expanded rapidly in NSW in recent years, so that there are now a total of 57 classes across the state. Many of the children in these classes have moved from special schools while, in some cases, whole classes, or even schools, have been relocated to IO classes in regular schools. A small proportion of the children in these classes have been referred for placement from the regular stream, while many others have been enrolled in an IO class from school commencement.

Teachers of IO classes see these as having a dual role: (a) as an "intermediate" position for some children who may ultimately be fully mainstreamed; and, more commonly (b) as a better long-term alternative for many students who would otherwise have attended a segregated special school.

Ten students from 10 classes in both metropolitan and county regions were included in the sample. Summary data for the group is presented in Table 4.

The general success of these placements can be seen from the results presented in Table 4.

In the first place, IO classes appear to be meeting the special academic needs of most of their students, as demonstrated by a high mean Index of Academic Progress. Only two of the ten children (Cases 29 and 72) were failing to make satisfactory academic progress, while the progress of a third child (Case 89) was somewhat more marginal. As a group, these children were also making satisfactory progress in the social/emotional area, as evidenced by a mean Social Index of 79.4%. Once again, however, there was a high degree of variability, with two children (Cases 67 and 72) making somewhat less than satisfactory progress in this area, while the progress of three more (Cases 2, 90 and 91) could be considered marginal. The third index, measuring participation in integrated activities, also shows a high degree of variability—with four students receiving scores of over 80 and two

Table 4. Summary Percentage Data on Students in Support Classes—IO Units

Case No.	Academic Integration Index	Social Integration Index	Integrated Activities	**Index of Successful Placement**	**Validation Index**	ORS Scores		Resource Support
						Structure	Class Management	
2	88	77	73	**79**	**100**	78	76	65
29[1]	68	80	82	**77**	**100**	50	89	75
65	93	92	88	**91**	**90**	NA	NA	NA
67[1]	82	65	82	**76**	**100**	100	98	55
70	97	90	60	**82**	**95**	94	100	73
71	93	88	78	**87**	**95**	81	94	83
72[1,2]	65	62	72	**66**	**100**	70	94	55
89	77	88	79	**78**	**100**	57	88	88
90	95	77	52	**74**	**93**	68	76	85
91[1]	98	75	82	**85**	**100**	72	87	85
MEAN (*n*=10)	85.6	79.4	73.9	**79.5**	**97.3**	74.4[3]	89.1[3]	73.8

[1] Previous enrolment: Special school

[2] Anomalous placement

[3] Excluding Case 65

only 60 or below. On average, however, these children appear to be participating in integrated activities to much the same extent as children in IM classes (Table 3) and somewhat more often than children in P classes (see Table 2).

The most striking feature of the data in Table 4 is that, despite the variations in the amount of academic and social progress evident for these students in IO classes and their varying amounts of participation in integrated activities, all students received a Validation Index of over 90%, indicating that, without exception, those associated with each of these children believed that their placement in an IO class was appropriate and should continue.

Academic progress

The very satisfactory academic progress of most of these students appears likely to reflect three factors: (a) The provision of an appropriate academic program in all classes; (b) a (generally) high allocation of time to basic academic subjects; and (c) the use of highly structured teaching strategies by most teachers.

Very few of these students were integrated for academic subjects as, in general, they were performing two to three grade levels (or more) below their same age peers and no support (except that which the IO teacher could provide) was available to assist with their integration in these areas. Only in one class (Case 67) were there regular opportunities for academic integration provided for IO class members. It is worth noting, however, that this was a junior IO class, so the children were being integrated into infants classes. Moreover, the target child (who was one of the lowest functioning, in academic terms) was *not* able to participate in such activities.

Social progress

The degree of social acceptance/progress of these students appears to be related, to some extent, to their previous class placement. Four of the ten students had been transferred relatively recently from special schools (in three cases because of a general transfer of the whole class) and of those, three were making somewhat less than satisfactory progress in the social/emotional domain. This situation may possibly reflect two factors: (a) the relative recency of their transfer from a special school where more deviation in social behaviour is generally tolerated; and/or (b) a greater degree of intellectual disability in those children who are initially enrolled in special schools, as opposed to those who are enrolled directly into a support class at kindergarten level. Although no psychometric data are available, case study data on three of these four children indicate a relatively low functional level, suggesting that their intellectual disability probably placed them towards the lower end of the moderate range.

Although few of the IO children had contact with school friends out of school hours, most were observed to interact appropriately with other children in the playground. Most often, they would choose to play with their friends from their own class, but a (smaller) number of appropriate interactions were also observed with children from regular classes and very few instances of teasing or outright rejection were reported. In one case (Case 29), because of the physical smallness and immaturity of the target child, there tended to be an element of "mothering" from children who clearly underestimated the target child's age. In one other case (Case 72), the target child was observed to act aggressively towards some of the regular children and this behaviour did tend to lead to rejection by her regular peers. Programs to encourage appropriate behaviour, both for regular and unit children, need to be established to enhance appropriate social interaction.

One problem commented on by a number of the IO class teachers was that their students were frequently "lost" and bored in the totally unstructured playground situation. The provision of various pieces of equipment (skipping ropes, hoops, balls) generally assisted in the encouragement of appropriate playground behaviour. Very often, however, such items were not allocated as a matter of course to all students, so the IO teacher would have to provide such things directly for her students.

Integrated activities

While all students participated, to some degree, in integrated social activities, only two of the students (Cases 65 and 89) participated in integrated academic activities on a regular basis. In most other case studies, this lack of integration was generally considered appropriate in view of the difficulties of providing an appropriate academic program for IO students within the regular class. In three cases (Cases 70, 71 and 90), however, it appeared that the students could have benefited academically from some participation in integrated classes, as their academic progress was reasonably high. In some schools, integrated activities did not go beyond playground interaction and participation in whole school excursions and assemblies, while in others a variety of integrated activities were carefully planned and implemented. These included integration with another (age-appropriate) class on a regular weekly basis for classes such as sport, craft and music, and on a daily basis for activities such as fitness. In some classes, successful programs of reverse integration were also being implemented. For example, in one class (Case 67), two children from the IO class who spent several periods each day in two regular classes were replaced by a child from their host class who could benefit from some time in the IO class. In two other schools (Cases 72 and 89), older children came into the IO classroom on a regular basis to act as peer tutors while in one of these schools (Case 89), a "buddy" system was also proving very effective in increasing playground interaction. There is evidence from relevant questionnaire data that support class teachers with good credibility within the regular school are able to achieve a greater degree of both academic integration and reverse integration between support class and regular school.

Resource support

Overall, most of the IO classes appeared to be reasonably well provided with resource support in the form of personnel, as most had access to an aide on, at least, a half-time basis. This resource allocation, however, is based on class type, rather than need. While some classes were more than adequately served by a half-time aide, for others there appeared to be a need for more aide time. This was particularly true for classes such as those represented by Cases 67 and 72 whose students came from very disadvantaged social backgrounds with a higher proportion of non-English speaking families. Such students tend to require very much more input in the area of both language and social skills training than students from a higher socioeconomic background. Moreover, academic skills (such as number and reading) are rarely reinforced at home so that progress in both academic and social areas tends to be slower. Classes with a high proportion of such children would clearly benefit from greater aide time to enable more intensive 1:1 teaching for these students.

In terms of physical resources, many IO teachers stated that both initial establishment funds and ongoing resource allocations were far too low to establish and maintain a well- equipped IO class. Consequently, most IO classes could not compare with classes within a special school in terms of access to equipment and materials. For example, very few classes had a "wet" area or access to kitchen facilities for cooking lessons and, in many cases, teachers had supplemented their meagre allocation of play or leisure equipment with toys and games discarded by their own children.

Summary

The data from these ten case studies suggest that an IO placement can be both appropriate and successful for a wide range of students who would otherwise have had little opportunity for mixing with "regular" students at school. The amount of integration experienced by the student does tend to vary from class to class, and appears to be associated not only with degree of disability but also with the degree of credibility within the regular school achieved by the support class teacher. While improvement in the quantity and quality of integrated activities should be a "whole-school" goal, it does appear that an IO placement is seen overwhelmingly within this sample as an effective alternative for a special school option.

Conclusions

In the case of children for whom the necessary range of resources is not available or who possess characteristics which make them unlikely to succeed in the mainstream (Center et al., 1989) the support classes provide an obvious alternative to special schools. However, a number of issues have been identified in relation to the three types of classes studied.

IO classes which usually combine small class size with optimal resources in the form of specialised teachers, an aide and a well structured curriculum, appear to be successful. Given the same intensity of resources, however, some children from these classes could equally succeed in the mainstream. This issue is brought into focus by successful placements of such children in isolated schools.

IM classes seemed to be the least effective of the support classes studied since they often appear to combine a much larger class size with non-specialist teachers, no aides and excessive numbers of disruptive children. There are grounds, therefore, for reconsidering the roles and functions of IM classes, perhaps in the direction of making these resource rooms with a high level of pupil turnover and/or making use of the support class teacher as a support teacher to the school. In cases where a highly competent teacher was in charge, however, they seemed to possess some advantages over mainstream class placement with no support for children needing continual curriculum modification.

There are some important organisational issues also associated with the P class. More opportunities should be engineered for academic integration within the mainstream for selected physically disabled children. A fully mainstreamed child with a severe handicap in a country area illustrates the feasibility of such placements. (Center et al., 1989) Opportunities should also be provided for reciprocal visits with children in regular classes. In this regard, the support teacher can play an important role by working with regular class teachers to support both physically disabled and regular children with difficulties within the mainstream.

Another issue which the research team considered important was the blurring of roles among support units. Children in each type of unit may be in need of physical therapy as well as optimal educational strategies and should have access on the basis of need, rather than on disability classification.

The factors that appear to contribute most to effective support class operation may be grouped under several headings:

1. *Class factors*

- Physical location: The class should not be isolated, but be adjacent to similar age peers.
- Label: The name of the class should be similar to that of other classes (not "special" in any way).
- Curriculum: This should be individual, age-appropriate and broad including academic skills and social skills for selected children from low socio-economic areas.
- Programming: Sufficient time should be allocated to basic skills which should be appropriate to age/level of students.

2. *Teacher factors*

- Teachers should have an appropriate qualification in special education.
- They should have experience in both regular and special education.
- They should have high credibility with other staff.

- They must have a high degree of involvement in (regular) school activities.

3. School factors

- The principal should provide positive support, and display positive attitudes towards the class, as well as having an understanding of special resource needs. He/she should also be flexible and uphold the authority of the executive teacher.
- Other staff should have positive attitudes towards disability. They should provide "moral" support and acceptance of both teacher and students, as well as being prepared to be flexible.
- Resources need to be adequate, appropriate and flexible.
- Support classes should not be placed in schools where numbers are declining but should be welcomed by both principal and staff as part of normalisation policy.

4. Integrated activities

Provision of opportunities for meaningful integration for support class students appear to be most successful when:

- they are well planned, with ample consultation with regular teachers;
- goals are clearly delineated and understood (whether social or academic);
- adequate support is available;
- they are age-appropriate and relevant to students involved;
- they take account of students' specific strengths/weaknesses and likes/dislikes; and
- they are continually monitored and evaluated.

References

Carlberg, C., & Kavale, K. (1980). The efficacy of special versus regular class placement for exceptional children: A meta-analysis. *The Journal of Special Education, 14,* 295–305.

Center, Y., Ferguson, C., & Ward, J. (1988). *The integration of children with disabilities into regular classes (mainstreaming)—A naturalistic study. Stage 1.* Sydney: Macquarie University.

Center, Y., & Ward, J. (1987). Teachers' attitudes towards the integration of disabled children into regular schools. *The Exceptional Child, 34,* 41–56.

Center, Y., Ward, J., Ferguson, C., Conway, R., & Linfoot, K. (1989). *The integration of children with disabilities into regular schools. A naturalistic study. Stage 2.* Sydney: Macquarie University.

Center, Y., Ward, J., Parmenter, T., & Nash, R. (1985). Principals' attitudes toward the integration of disabled children into regular schools. *The Exceptional Child, 32,* 149–161.

Danby, J., & Cullen, C. (1988). Integration and mainstreaming—A review of the efficacy of mainstreaming and integration for mentally handicapped pupils. *Educational Psychology, 8,* 177–195.

Hamilton, D. et al. (1977). *Beyond the numbers game: A reader in alternative evaluation.* Bassingstoke: Macmillan.

Hammersley, M. (Ed.) (1986). *Controversies in classroom research.* Milton Keynes: Open University Press.

Hegarty, S., & Evans, P. (Eds.) (1985). *Research and evaluation methods in special education.* Windsor: NFER-Nelson.

Larrivee, B. (1985). *Effective teaching for successful mainstreaming.* New York: Longman.

Leland, H., Shoaee, M., & Vayda, S. (1975). *Guidelines for the clinical use of the Adaptive Behaviour Scales.* Columbus, OH: Nisonger Center, Ohio State University.

Metherell,T. (1989). *NSW Special Education Plan.* Government Initiatives Monograph. Sydney: Government Printer.

Mittler, P. (1985). Approaches to evaluation in special education: concluding reflections. In S. Hegarty & P. Evans (Eds.), *Research and evaluation methods in special education* (pp. 165-176). Windsor: NFER Nelson.

Moreno, J.L. (1934). *Who shall survive?* Washington, DC: Nervous and Mental Diseases Publishing Company.

Neale, M D. (1988). *Analysis of Reading Ability* (rev. ed.). Hawthorn, Vic: Australian Council for Educational Research.

Sadler, D.R. (1985). Evaluation, policy analysis and multiple case studies: Aspects of focus and sampling. *Educational Evaluation and Policy Analysis, 2,* 143-149.

Thomas, D. (1988). The determinants of teachers' attitudes to integrating the intellectually handicapped. *Australian Journal of Special Education, 12,* 12–18.

Ward, J., Center, Y,. & Ferguson, C. (1988). Integration of children with disabilities: Design of a naturalistic study. In Ashman, A.F. (Ed.) *Integration 25 years on* (The Exceptional Child Monograph No. 1) (pp. 249–259). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

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Appendix

Academic index

	(Total Score = 30)	Maximum Score
1.	Child's academic progress (teacher rating)	3
2.	Child's academic progress (parent rating)	3
3.	Measured progress over time—Maths	3
4.	Measured progress over time —Reading	3
5.	Appropriateness of curriculum	6
6.	Time spent on academic subjects	6
7.	Pupil time-on-task	6

Social Index

	(Total Score = 30)	Maximum Score
1.	Child's social/emotional progress (teacher rating)	3
2.	Child's social/emotional progress (parent rating)	3
3.	Peer acceptance (sociogram/observer rating)	3
4.	Peer acceptance (teacher rating)	3
5.	Social progress during year (teacher rating)	3
6.	Class behaviour (teacher rating)	3
7.	Class behaviour (observer rating)	3
8.	Playground interaction (observer rating)	6
9.	Contact with class friends outside school	3

Integrated Activities

	(Total Score = 30)	Maximum Score
1.	Degree of *class* integration (location of class/ label of class)	3
2.	*Whole class* participation in school activities	3
3.	Access to all school areas (individual)	3
4.	Amount of academic integration (individual)	3
5.	Amount of social integration (individual)	3
6.	Appropriateness of academic integration (observer rating)	3
7.	Appropriateness of social integration (observer rating)	3
8.	Participation in general school activities (individual)	3
9.	Contact with regular peers out of school	3
10.	Degree of support teacher participation in wider school activities	3

CHAPTER 5

Support for Integration: Questioning the Efficacy of the Resource/Remedial Model of Service Delivery to Academically Handicapped Children

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While the resource/remedial teacher model of service delivery is widely used, the nature and quality of instruction employed by these teachers has not been the subject of much investigation. What little research there is on this topic suggests there are some questions about the appropriateness and efficacy of the model. The study reported here looks in detail at how primary resource/remedial teachers organize and present reading instruction. The results raise a number of questions about the use of time and the general approach to reading instruction of a sample of Australian resource/remedial teachers.

The resource/remedial teacher model of instruction has been the dominant approach to special education service delivery for underachieving and learning disabled children in regular classrooms for over a decade. It is, quite rightly, regarded as the most critical support mechanism for integrated children with a mild academic handicap and their regular class teachers. Indeed, the availability of resource/remedial teacher support services is often a key factor in the decision whether or not to integrate a child into a mainstream class.

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While there have been calls for change over the years, for example, the use of the resource/remedial teacher in the regular classroom (Bauwens, Hourcade, & Friend, 1989; Golby & Gulliver, 1979; Jenkinson, 1989), and the emphasis currently being given to consultation rather than direct teaching support (Polsgrove & McNeil, 1989; West & Idol, 1987), the "pull out" or "withdrawal" mode of remedial instruction remains the primary organisational arrangement in most schools where resource/remedial teachers are employed. In this model, academically handicapped children are withdrawn from their regular class for periods of intensive instruction usually in the areas of reading and/or mathematics and most often in small groups.

The rationale underlying remedial programs of this type is that the resource or remedial teacher can provide what the regular class teacher cannot, principally, more individual attention, and instructional methods and resources which are not normally used by, or available to, teachers in general education. Indeed, regular class teachers who have children with a disability in their class expect and rely heavily on resource/remedial teachers to provide individualized and intensely structured support instruction (Meyers, Gelzheiser, Yelich, & Gallagher, 1990)

While the efficacy of remedial services has some support in the literature (see Wiederholt, Hammill, & Brown, 1983 for a review) there are many documented shortcomings which cast serious doubt on the capability of the resource/remedial model as it presently exists. The problems cited include the failure of classroom teachers to share responsibility for the target child (Ammer, 1984), discontinuity between the learning and instruction that take place in the regular classroom and the resource/remedial room (Kaestle & Smith, 1982; Johnston, Allington, & Afferbach, 1985), inadequate communication between classroom and pull out teachers (Ammer, 1984; Johnston et al., 1985), social stigma associated with pull-out programs (Conroy, 1988), and reduced time on task (Allington, Stuetzel, Shake, & Lamarche, 1986; Ysseldyke, Thurlow, Mecklenburg, & Graden, 1984). The limited academic progress made by children in pull-out programs has been reported in a number of studies (Epps & Tindall, 1987; Idol-Maestas, 1983; Leinhardt, Bickel, & Pallay, 1982; Polloway, 1984). Indeed, some researchers have found that the more time pupils spent in pull-out programs, the less they learn (Coulson et al., 1977; Glass & Smith, 1977).

While remedial programs are generally designed to increase the amount of instructional time in specific curriculum areas (e.g., reading), studies of pull-out programs have shown that rarely is total instructional time increased (Vanecko, Ames, & Archambault, 1980; Kimbrough & Hill, 1981). Part of the problem seems to lie in the loss of instructional time due to transitions between the regular and pull-out settings.

Alternatives to pull-out programs have faired little better in reviews. The much touted "in-class" model of remedial instruction has not been found to guarantee remedial-regular program co-ordination (Lee & Rowan, 1986). There is some evidence, in fact, that in-class remedial services are structurally identical to pull-out programs (Slavin & Madden, 1989).

Despite the accumulation of evidence questioning the efficacy of pull-out remedial services, however, the model continues to receive strong support as the major direct service model for children with a learning difficulty in mainstream education. What is perhaps even more interesting (or disturbing) is that regardless of the widespread use of pull-out programs very little is known about the nature of the instruction delivered in resource/remedial rooms. Having the service available seems to be evidence enough in the minds of some educators, that integration initiatives are receiving the back-up and support they require.

Much of the faith in remedial services that exists in Australia and elsewhere stems from the belief that resource teachers have acquired curriculum and instructional knowledge and skills aptly suited to the needs of children with learning problems (Smith & Richmond, 1988). In Australia, because most resource teachers have been regular primary or secondary teachers, and typically have been selected for their suitability for training as special educators, the belief is that they are highly knowledgeable and competent professionals who exhibit an exemplary repertoire of instructional and managerial skills. The extent to which resource teachers in Australia have these qualities has never seriously been the subject of investigation (Haynes & Jenkins, 1986).

Haynes and Jenkins' (1986) study of instruction in 28 resource rooms provides some insight into the question of resource teacher instructional expertise. The findings are disconcerting to say the least. Students were found to engage in reading activities at a level far less than one would have expected for a remedial program. Noninstructional time was high, there were inordinately large amounts of seatwork, and reading activities and methods varied little from what was employed in the children's regular classrooms.

In a study of Australian teachers Fields (1990) compared the responses of remedial and regular class teachers to the assessment and instructional needs of three handicapped children. Case descriptions were presented to the teachers in the form of short vignettes. While the remedial teachers tended to differentiate instruction based on the perceived needs of the three children more so than the regular class teachers, the general approach to instruction by both groups of teachers was the same—a reliance on Whole Language teaching supplemented with phonics and vocabulary instruction, and to a lesser extent instruction in comprehension skills. Remedial teachers showed much more knowledge of both formal (commercially available test instruments) and informal assessment procedures but these latter procedures were largely skills-based and not compatible with the Whole Language approach to teaching. Despite indicating a reliance on the Whole Language approach to instruction, none of the remedial teachers identified an assessment device or procedure which could be used diagnostically (for program planning purposes)or for the evaluation of learning (and instruction).

The picture of remedial instruction conveyed by the findings of the above studies is not one of quality instruction. At best, the remedial teachers studied provided similar instruction to that employed by their regular class colleagues.

While the available evidence on resource/remedial teacher instructional practices is not encouraging, the paucity of even basic descriptive information on how resource teachers go about their work (Haynes & Jenkins, 1986) suggests that it would be premature to dismiss the contribution of these special educators to the work of regular education teachers and to the education of children with learning problems.

The investigation reported here was an attempt to provide a greater insight into and understanding of remedial teaching in pull-out programs. The particular focus of the investigation was on the activity and academic task structures of remedial reading lessons and what this analysis can tell us about the quality of reading instruction for children with learning problems.

Methodology

Subjects

Participants in the study were 28 state employed primary school resource teachers. Nineteen taught in urban schools and the remainder were in rural centres throughout Queensland. The teachers worked predominantly with low-performing children and those with a learning disability in non-categorical withdrawal situations. Seven teachers reported some use of remedial teaching directly in the regular classroom. The 28 resource teachers had all completed or were near completing graduate studies in special education.

Procedure

All 28 teachers were observed teaching small group remedial reading classes on three separate occasions. Each lesson involved a different group of children. Observations were made by experienced teachers completing a course in research on teaching at the University College of Southern Queensland.

Observers recorded detailed notes on teacher and pupil behaviour focussing in particular on task and activity description. These notes were then used to construct a narrative record of the lesson. The 84 narrative records were subsequently used as the basis for analysing task and activity structures.

Lesson Activities. Using Doyle's definition, an activity was broadly defined as "... a segment of time in which participants are arranged in a specific fashion and communication follows an identifiable pattern" (Doyle, 1990, p. 350). Doyle provides detailed information about the nature of lesson activities indicating that they can be defined in terms of their duration, the physical milieu and resources used, the responses expected of the children, and the content or subject matter which is the focus of the lesson.

This view of lesson activities is not incompatible with the view taken by Haynes and Jenkins (1986) in their observational study of resource teachers, and, as such, was used in this investigation. In the study by Haynes and

Jenkins (1986) reading activities were classified as direct or indirect. Direct reading activities included all situations where the students were orally or silently reading print (letters, words, sentences and paragraphs), while indirect reading activities were reading-related activities that did not involve reading print (e.g., discussing a story, writing answers to questions about a story, listening to a phonics lesson).

Most classroom reading activities can be easily classified as either direct or indirect. For example, a segment of oral reading turns would be categorised as a direct reading activity. It would have a defined duration, it would take place in the classroom, usually in a small group, with grade/ability and interest appropriate reading material (most often readers) provided by the teacher. The children would be expected to read fluently and to cooperate with the teacher in the process of correcting errors in reading when they occurred.

Lesson Tasks. Doyle's (1983) work on academic tasks guided the identification and analysis of tasks in this study. Tasks are similar to activities but focus more on the cognitive processes students need to use to successfully complete their assigned work. According to Doyle and Carter (1984) tasks have three elements: (a) a *goal* or *product* (e.g., fluent oral reading of a story or passage from a story, completion of written answers to a series of comprehension questions); (b) a set of *operations* to produce the product (e.g., recalling factual information from a passage, writing a summary of a story); and (c) *resources* of *"givens"* (e.g, directions to complete an assignment, a model of the "finished" product (such as the teacher modelling the reading of a story and types of reading material).

Doyle (1983) also distinguished four types of academic tasks based on the cognitive operations required to complete them. These tasks were: (a) *memory tasks* involving the recall, recognition, or reproduction of information previously encountered; (b) *procedural or routine tasks* requiring students to use a formula or predictable sequence of steps to generate an answer; (c) *comprehension or understanding tasks* necessitating such processes as relating new information to similar, previously encountered information, applying procedures to new problems, or choosing from several procedures one or more which would be applicable to the solution of a particular problem, and drawing inferences based on previously encountered information; and (d) *opinion tasks* requiring a student to state a preference.

The following procedure was applied to each narrative record. First, activities were marked (beginning and ending) and designated as direct or indirect; second, the approximate duration of each activity was calculated; third, the setting in which the activity took place was described, with attention to where in the classroom the teacher and students were, how many students were involved, types of materials used and aids employed; fourth, the subject matter of the activity was determined using the State Language Arts Curriculum Guide as a basis for designating the subject topic; and, fifth, the most frequently occurring lesson activities were further analysed for information about their task structures. The goal or product of each task was determined as were the operations required to produce the product. Information about the resources associated with the task not already determined through activity analysis was gathered.

Each of the narrative records was analysed by two researchers. Using previously compiled narrative records for training, 92% agreement on lesson activities was achieved after eight hours of training. Eighty-five percent agreement on task structures was achieved after a further 5 hours of training.

Results and Discussion

Student and lesson characteristics

The 84 lessons observed spanned all primary school grades. With the exception of two composite remedial groups consisting of children from Grades 2 and 3, and Grades 3 and 4, all other remedial groups were formed from children in single grade classes. Seven Grade 1, 20 Grade 2, 28 Grade 3, eight Grade 4, nine Grade 5, six Grade 6, and four Grade 7 remedial classes were represented in the study. The mean group size for remedial classes in the study was 3.95. Class size ranged from one to 12 and mean duration of remedial lessons was 32.6 minutes, with a range from 20 to 60 minutes.

Non-reading instruction activities

Three non-reading instruction categories were used in the study—writing, academic other and management. From an average lesson of 32.6 minutes in duration, most students spent 4 minutes waiting for instruction to begin or to recommence after an interruption or a change in activity. Academic activities other than reading accounted for nearly 3 minutes in the average lesson. Most of the non-reading (academic other) activities were language related and included writing summaries or stories, spelling drills, library research skills, and discussion of information aimed at arousing children's interest in the topic of the lesson and/or inputting information to develop children's prior knowledge relevant to the subject matter of the material to be used in the lesson. It should be noted that in the context of Whole Language reading instruction these activities would be regarded as an integral part of the learning to read process and could arguably be counted as reading tasks. Management occupied 5.3 minutes of the average lesson with most of this related to setting up and changing activities (collecting materials, moving to a specified part of the classroom, giving directions, and getting students started on their activities). Very little behaviour management (discipline) was observed in the 84 lessons. In all, non reading activities accounted for 12 minutes of the average lesson or 37.5% of class time.

Reading instruction

Direct reading activities accounted for 8.8 minutes (26.9%) of the average lesson. This compares with 25% reported by Haynes and Jenkins (1986). It must be remembered, however, that Haynes and Jenkins used the student as the focus of observation and the 25% reported in their study was a measure of actual engagement in direct reading. In this study activities were the focus of observation and analysis, and while 8.8 minutes of the average lesson was assigned to direct reading, student engagement in this activity would typically be less then the allocated time observed, even in classrooms where children were generally attentive and cooperative.

Oral reading was the dominant direct reading activity consuming 5.2 minutes of the average lesson. Indeed, oral reading (generally in the form of reading turns around the group) was the most frequently employed activity across both direct and indirect reading tasks. Silent reading accounted for just 2 minutes of the average allocated time for the lesson.

Indirect reading activities took 11.73 minutes of the average remedial lesson. Five minutes were spent in talking about reading material (words, sentences, or paragraphs) Approximately four minutes (13.2%) was devoted to reading related activities such as vocabulary building, sentence completion exercises, and writing answers to comprehension questions. Just 1.7 minutes (5.3%) of the average lesson involved student's listening to reading (mostly by the teacher). Had the student been the unit of analysis this figure would undoubtedly have been higher as students other than those reading in oral reading turns would, potentially, have been coded as listening.

The present study found a greater use of indirect reading activities, particularly talking about reading material, then was reported in the study by Haynes and Jenkins (1986). In that study, indirect reading accounted for 19% of student engaged time. This would appear to be a factor related to the general orientation of the teachers in the study reported here to Whole Language instruction where group discussion about what was read (or about to be read) is a key feature of this approach to reading instruction. In addition, the Haynes and Jenkins (1986) study included resource teachers who employed commercial Direct Instruction programs where direct, not indirect reading dominates reading instruction.

Reading activities

The mean number of reading activities per lesson was 3.8 with a range of one to nine. The major distinguishing features of reading activities in the study were *context* and the type of *pupil and teacher behaviour* dictated by the activity. The duration of activities varied considerably even within the same type of activity. In virtually all cases the activity took place *(setting)* in the resource room around the children's desks or in front of the blackboard, in a withdrawal room off the regular classroom, or (less commonly) in a corner of the regular classroom. *Props* or *material* used in the activities included readers, flashcards and worksheets, commercial and teacher-made games, blackboard assignments, and the use of large sheets of paper spread over an easel or portable blackboard. Audio-visual equipment such as tape recorders, videos, language masters, were infrequently used. In only one lesson was a microcomputer used and then just for one student.

Activities related to oral and silent reading, word recognition skills (including phonics and sight vocabulary), comprehension skills and listening, made up 87.3% of all lesson activities focussed on reading. Sight vocabulary exercises accounted for 70 (22.2%) of the lesson activities. These exercises were presented primarily as either flashcard tasks or as written assignments involving word completion and word recognition. Phonics activities were common, being evident in 56 (17.8%) of the lesson activities of the resource teachers.

An interesting feature of the remedial teaching observed in the study was the frequent use of games as the medium of instruction in vocabulary and phonics. Of the 126 vocabulary and phonics activities observed across the 84 lessons 43 (34.1%) were presented as games using commercial or teacher made material.

Comprehension and comprehension related activities accounted for 62 (19.7%) of all activities. Comprehension tasks involving writing answers to questions based on a passage featured minimally in the lessons of the 28 resource teachers. Oral comprehension (where questions were presented and answered orally) was the dominant comprehension activity.

In this study comprehension skills were often taught and tested in the context of group discussion and group problem solving typical of the reciprocal teaching strategy and strategies employed in Whole Language reading instruction. Group discussion focussed predominantly on selections of children's literature (mostly fiction) and invariably involved a sequence of steps including a discussion of related background information to the story, and prediction of what the story might be about. This was typically followed by the children and the teacher taking turns at reading segments of the story. The meaning of the text would be the focus of attention next as would the author's craft and strategies for reading for meaning and overcoming blocks to understanding, the conventions of language (such as phonics, grammar, punctuation, spelling) would be introduced, reviewed, or reinforced at this time, in context and as the opportunity arose in the material being read. The students would at sometime be asked to make an active response to what was read through producing written summaries or different versions of the story, constructing a story map, producing a retrieval chart, performing a play based on the story, etc. The responses of the children, including their reactions to and feelings about events in the story, characters, etc., would be elicited throughout and shared with class mates and the teacher.

It was clear that many teachers were developing their lessons around this or a similar sequence of steps, although the results were never quite as orderly or as complete as just depicted. Adjustments to the sequence were made because of time constraints and not uncommonly because of little or waning student interest. Indeed, there were no instances where all of the steps indicated above were covered in one lesson. References to earlier and later lessons suggest that there was little if any follow-up on the stories introduced in any given lesson. It would appear from the 84 lessons observed that most attention was given to predicting, reading, word attack, and seeking meaning from the text. Creative responses to the text were not evident to any great extent, and little time was spent on sharing either oral or written responses to the text.

Academic task structure of reading activities

Three broad reading activities accounted for 70% of all direct and indirect reading activities in the lessons of the 28 teachers. These were oral reading turns, talking about what had been read (indirect oral), and written activities associated with vocabulary development, factual and inferential comprehension. These three activities were further analysed for the nature of their academic task structure. The particular focus of the analysis was on task products, operations and resources.

While *oral reading* serves many purposes, the *product* expected of children in most primary grades is fluent, responsive reading. To achieve this the student would need to have acquired and be able to use *(operations)* a grade level appropriate sight vocabulary and a variety of grade level appropriate word attack skills. In addition, knowledge and skill in correct pronunciation and enunciation, and the awareness of when and how to vary tone, pitch, and volume is critical. Finally, an appropriate if not creative interpretation of the passage is expected, along with the avoidance of distracting mannerisms. The *resources* used in most oral reading activities were high interest readers matched in readability level to the children's reading ability.

While oral reading was, in most lessons where it occurred, introduced in the broad context of reading age appropriate, high interest children's literature (and therefore developing an appreciation of oral language and literature) the primary focus of teacher reactions to children's reading during and following oral reading turns was evaluative. It appeared that children engaged in regular oral reading activities and these were used by the teachers as a source of information about the child's progress in reading. Problems encountered were the basis for teaching, or in most cases, the re-teaching of skills and strategies for word attack and comprehension.

While a detailed analysis of teacher-pupil interaction is not possible through narrative records, the information provided on how teachers responded to reading breakdowns is informative. The most common strategy was to have the child continue to read to the end of the sentence then to go back to the word or part of the sentence which caused difficulty and, using the whole context of the sentence and story, to guess what the word might be and/or might mean. When this approach did not work, other children were asked to suggest what it might be.

The opportunity existed for children to engage in problem solving/ strategy deployment processes during oral reading activities but there was little evidence of this occurring in the narrative record data. Much of the cognitive activity employed by the children during oral reading involved activating already acquired skills and prior knowledge.

The *written exercises* in the lessons of the resource teachers observed involved a variety of activities, but the dominant activity entailed games where words were constructed e.g., using an initial digraph such as "wh" or "th" or where words were selected from a list of possible correct alternatives, or identified as in a cloze exercise. In virtually all instances the *product* expected from these exercises was correct word recognition. In many instances of this activity the students were not required to say the word constructed or identified.

The *resources* available to the students were the game materials (e.g., board games, card games, phonics wheels). The *operation* involved appeared to be little more than the activation of existing sight vocabulary knowledge and the use of acquired word recognition skills. These activities were often completed in pairs or small groups while the teacher was concentrating his or her attention on one other student, frequently listening to a child read aloud. There was often minimal teacher feedback on the children's written activities and while many were "self-correcting" the feedback provided here was little more than knowledge of the correctness of a response, how many "points" were accumulated, or who was the winner of the game.

Activities involving *talking about what had been read* provided considerable opportunity for teachers to emphasize many important reading and comprehension skills. While these activities were dominated by the teacher questioning pupil responding instructional format (recitation) they did often allow for a comprehensive coverage of the texts read.

The *products* of this activity were varied. Generally, children had to demonstrate a recall of story sequence and details, an appreciation of the motives and feelings of the central characters, and an understanding of new and unfamiliar text vocabulary and concepts.

The *operations* involved were as varied as the products called for. Considerable time was devoted to eliciting children's recall (prior knowledge). Students were periodically asked to draw inferences from the information in the passages read but most attention was given to information about the central characters in the story (most reading material was narrative rather than expository), personal reactions to events in the story, and the interest stimulated by the story. Clarification of unknown words, difficult concepts, and misunderstandings received only minor attention and in general these interactions were initiated by the teacher rather than the students. At this point students were prompted to use various word recognition strategies considered to already be in the children's repertoire of problem solving strategies. Other problems were solved by calling upon volunteers from the group ("Who knows the answer?" "Who can help?") or being provided with the solution by the teacher.

In this type of activity the *resources* employed were the stimulus reading materials, books, excerpts from books and teacher handouts (photocopied stories). In only a few instances did the teacher use the blackboard to summarise responses, or to organise thoughts around such things as the theme of the passage, actions or motives of the characters or plot.

Summary and Conclusion

The study reported here aimed to expand the meagre knowledge base on how resource/remedial teachers teach in pullout remedial settings. The investigation focussed on reading instruction, and in particular, on lesson activity and academic task structures using a conceptual framework developed by Doyle (1983).

Many of the findings of the study were in line with similarly focussed investigations conducted earlier by Fields (1990) and Haynes and Jenkins (1986) and are supportive of a growing concern about the efficacy of withdrawal models of remedial instruction and their utility as a support mechanism for integration. Of particular concern in this study was the following:

1. Limited allocated time for remedial instruction, typically about 30 minutes per lesson, and for most children (based on available information) about 2–3 lessons per week.

2. Large amount of non-instructional time in remedial lessons (transition and wait time and time needed for management). About a third of available lesson time is consumed by these on non instructional activities and periods.

3. Comparatively little time devoted to direct reading activities compared to indirect reading activities. Direct reading activities have been shown to have a far stronger relationship to reading achievement than indirect activities.

4. Orientation to Whole Language instruction but with an apparent incapacity due to the limited time remedial teachers have to work with the children, to implement the approach fully and, therefore, to maximize pupil opportunity to learn via the strategy.

5. Emphasis on games as a major mechanism for teaching reading skills. Game formats, while admittedly attractive to children, often fail to give the level of practice opportunities low performing children need and typically cannot provide the individual and detailed feedback required by poor learners.

For most mainstreamed handicapped children and their regular class teachers effective integration can only be achieved if instructional support mechanisms exist to provide children with the unique or additional services they require to help them achieve to their capacity. The resource/remedial model of service delivery is the major direct teaching support mechanism for mildly academically handicapped children in Australian schools. As in the United States the withdrawal approach to remedial services in Australia appears to have serious limitations and its efficacy must be in question.

There is enough evidence now for Australian authorities to reconsider the emphasis placed on withdrawal services and to begin to explore how resource/remedial teachers might be better used in the schools.

References

Allington, R.L. Stuetzel, H., Shake, M., & Lamarche, S. (1986). What is remedial reading? A descriptive study. *Reading Research and Instruction, 24,* 15–30.

Ammer, J.J. (1984). The mechanics of mainstreaming: Considering the regular educator's perspective. *Remedial and Special Education, 5,* 15–20.

Bauwens, J., Hourcade, J.J., & Friend, M. (1989). Cooperative teaching: A model for general and special education integration. *Remedial and Special Education, 10,* 17–22.

Conroy, M. (1988). How teachers rate pullout reading programs. *Learning, 16,* 70–74.

Coulson, J.E., Hanes, S.C., Ozenne, D.G., Bradford, C., Doherty, W.J., Duck, G.A., & Hemenway, J.A. (1977). *The third year of Emergency School Aid Act (ESAA) implementation.* Santa Monica, CA: System Development Corporation.

Doyle, W. (1983). Academic work. *Review of Educational Research, 53,* 159–199.

Doyle, W. (1990). Classroom knowledge as a foundation for teaching. *Teachers College Record, 91,* 347–360.

Doyle, W., & Carter, K. (1984). Academic tasks in classrooms. *Curriculum Inquiry, 14,* 129–149.

Epps, S., & Tindall, G. (1987). The effectiveness of differential programmes in serving students with mild handicaps: Placement options and instructional programming. In M.C. Wang, M.C. Reynolds & H.J. Walberg (Eds.), *Handbook of special education: Research and practice: Volume 1. Learner characteristics and adaptive education* (pp. 213–248). Oxford: Pergamon Press.

Fields, B.A. (1990, September). *Remedial teaching under the microscope: A study of the instructional practices of resource/remedial teachers.* Paper presented at the 14th Annual Conference of the Australian Association of Special Education, Canberra.

Glass, G., & Smith, M.L. (1977). *Pull out in compensatory education.* Washington, DC: Department of Health, Education and Welfare.

Golby, M., & Gulliver, J. (1979). Whose remedies, whose ills? A critical review of remedial education. *Journal of Curriculum Studies, 11,* 137–147.

Haynes, M.C., & Jenkins, J.R. (1986). Reading instruction in special education resource rooms. *American Educational Research Journal, 23,* 161–190.

Idol-Maestas, L. (1983). *Special educator's consultation handbook.* Rockville, MD: Aspen Publishers.

Jenkinson, J. (1989). Integration in Australia: A research perspective. *Australian Journal of Education, 33,* 267–283.

Johnston, P., Allington, R.L., & Afferbach, P. (1985). The congruence of classroom and remedial reading instruction. *The Elementary School Journal, 85,* 465–478.

Kaestle, C.F., & Smith, M.S. (1982). The historical context of the federal role in education. *Harvard Educational Review, 52,* 383–408.

Kimbrough, J., & Hill, P.T. (1981). *The aggregate effects of federal education programs.* Santa Monica, CA: Rand Corp.

Lee, G.V., & Rowan, B. (1986). *The management and delivery of instructional services to Chapter 1 students: Case studies of twelve schools.* San Francisco: Far West Laboratory for Educational Research and Development.

Leinhardt, G., Bickel, W., & Pallay, A. (1982). Unlabelled but still entitled: Toward more effective remediation. *Teachers College Record, 84,* 391–422.

Meyers, J., Gelzheiser, L., Yelich, G., & Gallagher, M. (1990). Classroom, remedial and resource teacher's views of pullout programs. *The Elementary School Journal, 90*, 533–545.

Polloway, E.A. (1984). The integration of mildly retarded students in the school: A historical review. *Remedial and Special Education, 5*, 18–28.

Polsgrove, L., & McNeil, M. (1989). The consultation process: Research and practice. *Remedial and Special Education, 10*, 6–20.

Slavin, R.E., & Madden, N.A. (1989). Effective classroom programs for students at risk. In R.E. Slavin, N.L. Karweit & N.A. Madden (Eds.), *Effective programs for students at risk* (pp. 23–51). Boston: Allyn and Bacon.

Smith, C.J., & Richmond, R.C. (1988). Support for special needs: Changing rules in an advisory service. *Educational Review, 4*, 67–87.

Vanecko, J., Ames, N., & Archambault, F. (1980). *Who benefits from federal education dollars?* Cambridge, MA: Abt Books.

West, J.F., & Idol, L. (1987). School consultation (Part 1): An interdisciplinary perspective on theory, models, and research. *Journal of Learning Disabilities, 20*, 338–408.

Wiederholt, J.L., Hammill, D.D., & Brown, V.L. (1983). *The resource teacher: A guide to effective practices.* Boston: Allyn and Bacon.

Ysseldyke, J.E., Thurlow, M.L., Mecklenburg, G., & Graden, J. (1984). Opportunity to learn for regular and special education students during reading instruction. *Remedial and Special Education, 5*, 29–37.

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CHAPTER 6

Cognitive Strategies for Use in Classes Containing Students with Diverse Abilities

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During the 1970s and early 1980s a number of Australian investigators were working on the development of instructional methods and procedures based upon strategic and metastrategic training. Like their colleagues overseas, much of the experimentation was laboratory-based. In other words, students were withdrawn from their regular classrooms and they worked one-to-one, or in small groups, with a teacher or researcher who taught them how to use memory and information processing strategies to achieve success on novel experimental task. Many of these early cognitive education efforts were received with considerable scepticism by teachers. Researchers appeared loathe to involve the classroom teacher in the research (having the potential of confounding their experimental results) and seemed reluctant or unable to translate their instructional techniques into practices which teachers could use in the classroom.

At about the same time in Australia, as in most other North American and European countries, teachers in regular classes began confronting the challenge of an increasing number of students with learning and intellectual

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disabilities in their classes. With this broadening of the range of student abilities and skills came a demand for teaching procedures which were suitable for all students with diverse abilities rather than simply those who had traditionally been accommodated in "regular" classes. In attempting to cope with integration (or mainstreaming), teachers and researchers became more aware of the need to focus upon *how* students learn and problem solve rather than simply providing them with opportunities for learning and problem solving.

These two parallel events gradually converged as researchers and teachers recognized the importance of making students awareness of how they learned and solved problems (called metacognition) and of the need to translate information processing techniques and strategies into procedures which could be applied in mainstream classroom. Teaching strategies such as Reciprocal Teaching and reading programs such as "Learning to Learn to Read" (LTLTR) were soon in general use in many classrooms. One of the attractions of these cognitive approaches was their apparent applicability across ability groups. In other words, procedures which worked for average and above average students seemed to work equally well for students with below average abilities with some minor modifications. Regardless of the apparent effectiveness of these innovations, the differences between students' learning rates remain an impediment to the smooth operation of integrated classrooms. One solution to the instruction problem has been to examine the nature of intellectual abilities and to develop cognitive education programs that emphasize the development of information processing skills.

Developing cognitive skills has not been a recent educational initiative. By the mid to late 1800s cognition had become part of education practice through the work of Itard, Seguin and Montessori. The fall in importance of thinking processes during the days when behaviourism was popular was to reverse when cognitive behaviour modification techniques were introduced in the mid-1970s. Since then, information processing theory and practice has had a significant influence on the development of educational technology (Ashman & Conway, 1989).

Perhaps the most prominent conceptual foundation for research and practice has been located in the areas of planning and metacognition (concepts often referred to as superordinate cognitive processes). The link between these concepts and academic skills has led to the development of several instructional approaches to reading, mathematics and spelling (Brown & Palincsar, 1982; Logan & Barber, 1985; Wong, 1986). They stand in contrast to earlier studies in which the instruction focused only on information processing, independent of curriculum content. These latter approaches to instruction in mixed ability classrooms would be naïve, considering the problems that students with learning difficulties have in generalizing newly-learned strategies to tasks outside the training context (Vaughn & Bos, 1987).

The recognition of the importance of integrating cognitive education procedures into classroom curricula led to the development of *Process-Based Instruction* (PBI). This model grew from the realization of three demands relating to the education of students with diverse cognitive abilities and academic skills in mainstream classes. First, there has been a need to develop procedures that are relevant to the various instructional settings in which students are taught. These range from resource room and special classrooms, to regular or mainstream classes, to special programs generated specifically for students of above average ability. Second, there has been a need to focus on the development of students' independent learning and problem solving skills which generalize to activities and situations outside the classroom. Third, there has been a need to establish on-going assessment procedures during instruction that can assist students to monitor their strategic behaviour and success in academic activities, regardless of their level of ability.

In this paper, we overview the PBI procedures and processes. In the first section, we outline the foundations of the method. In the second, we describe the procedure and techniques that apply to mixed ability classes. In the third section, we will summarize very briefly some of the current developments in PBI research.

The Conceptual Foundation of PBI

Problem solving is an integral part of our daily lives as it involves the interrelationship of knowledge, planful behaviour, and the execution of appropriate goal-oriented actions and the research dealing with the nature of problem solving has extended across age and ability dimensions (e.g., Anderson, 1981; Fredericksen, 1984; Smith & Dutton, 1979; Spitz, Minsky, & Bessellieu, 1985). Some of the problems we confront on a daily basis are well-structured, that is, the problem itself contains all of the information which is needed to solve it. Other problems demand the application of skills to what have been called ill-structured tasks, that is, they rely primarily on the importation and adaptation of strategies and information from external sources or from long-term memory.

The study of problem solving has guided researchers who have focused upon the training of problem solving behaviour and skills. For example, those students who experience difficulty in transferring learning to activities outside the context of instruction, it may be necessary to increase the structure within training by teaching explicit problem solving procedures that involve planning and plan execution. Hence, the focus would be to incorporate strategies and problem solving procedures with the task, thereby changing its character from one which is ill-structured to one which is well-structured. Teaching students how to solve problems becomes easier if they can perceive and understand how effective problem solving occurs. This approach is consistent with the results of strategy training research which also emphasized the use of memory aids, goal-oriented activity, metacognition and attribution retraining (see e.g., Groteluschen, Borkowski & Hale, 1990).

The concept of planning is closely associated with the problem solving process. The former term has a research heritage in several domains—intellectual abilities (Berger, Guilford, & Christensen, 1957), information processing theory (Alterman, 1988; Hayes-Roth & Hayes-Roth, 1979; Miller, Galanter, & Pribram, 1960) and neuropsychology (Luria, 1973). Typically, planning enables judgments to be made about the goal of the activity being undertaken, its demands, the information necessary for the decisions to be made, the evaluation of expedient means of achieving the goal, the enactment of procedures to achieve success and the monitoring of performance through all stages of problem solving.

Translating cognitive concepts (such as organizational strategies and planning) into classroom practice requires consideration of learner characteristics (knowledge, organizational skills and ability, affective variables) and the nature of instruction, including ecological, content and teaching variables (Marsh, Price, & Smith, 1983). It requires consideration of how students use information processing strategies for effective learning and problem solving, and it requires consideration of the role of teachers in promoting the acquisition of knowledge and interdependence in problem solving and learning.

Translating PBI into a Classroom Instruction Model

The PBI model provides instructional procedures and techniques that are appropriate for teaching and learning in mixed ability classrooms. The cornerstone of PBI is the concept, *plan*. Plans are developed by teachers and students for dealing with the current curriculum content, although satisfactory use of a plan alone will not necessarily lead to success in either information processing or academic achievement. How students organize information into meaningful units and how competent they are in doing so is important. This means that a second emphasis on *information processing strategies* is required to assist students to organize (i.e., code) information efficiently during any complex intellectual activity. The third emphasis of the model is on *cooperative teaching and learning*. Teachers must become involved in students' learning and their progress and, similarly, students must consider themselves as partners in the teaching-learning process.

While little attention has been given to the role of curriculum content in most laboratory investigations of the relationship between learning and academic skills, it remains the primary objectives of classroom activities. Hence, PBI adopts the curriculum topics as the vehicle for learning how to learn and problem solve. These four elements (plans, coding strategies, cooperative teaching and learning, curriculum topics) are the pedagogical pillars of PBI. In the following section, we elaborate their roles.

PBI Components

It is a premise of PBI that the four components introduced immediately above are interdependent and of equal status (Ashman & Conway, 1989). Plans provide problem solving sequences that assist in the successful completion of curriculum tasks when students have the information and skills in their existing knowledge bases, but cannot apply them to the task unaided. In carrying out that plan, students use organization strategies to integrate information presented to them with information which is already in their knowledge base (or memory). The teacher's role is to ensure that all students in the class, regardless of their level of ability, recognize the value of plans and organization strategies and actually use them in the curriculum tasks at hand.

Role of plans

Plans are not the same as task analyses. Plans are general action sequences that provide a system for working toward a solution. Hence, planning is the activity undertaken in devising such action sequences. In contrast, task analysis is the process of breaking complex behaviour into components and links (i.e., what-to-teach). These components are the teaching objectives and must be sufficiently well-defined so that students can achieve the prescribed goal.

PBI plans are instructional aids which provide action sequences/metacognitions and have four components:

- a cuing component which prompts the student where to look for relevant information (or what to look for);
- an acting component which prompts the student to perform actions which are involved in the problem solving or learning process;
- a monitoring component which prompts the student to check whether progress is being made; and
- a verifying component which prompts the student to check whether the correct answer or behaviour has been performed, in other words, that the goal has been achieved.

Plans can be presented in a variety of forms including prose, pictures (rebus) or a combination of words and pictures. PBI plans are different to directions or rules as plans can be altered to suit the needs of individual students and developed to meet specific learning contexts or needs. When they are no longer required, they are set aside. Because plans provide a framework within which curriculum based learning occurs they can be applied to all curriculum areas and all teaching approaches. Hence, they can be used appropriately in a specific phonics reading program, in a problem solving mathematics program using concrete materials, or in a science lesson dealing with catalysts. The teacher selects the content and the teaching strategy and then uses plans to assist in teaching the content and processes to the students.

Plans may be introduced using any number of teaching strategies. For example, a plan for a specific curriculum task could be developed first by the teacher, introduced to students and, later, adapted by students to suit their individual needs. Alternatively, the teacher might present the class with the content to be learned in the form of a problem, ask students to make up a PBI plan to solve the problem, then have students copy (or record) a class plan in their own words for their use as needed. A teacher might also give the class an oral PBI plan, ask student to carry out the plan and then record it in their own words for later use. See Figure 1 for an example of a plan for preparing a bar graph (note here that plans apply to specific situations, students and teachers—one teacher's plan for a curriculum task may be quite different to that of a colleague).

A Plan to Construct a Bar Graph

1. What should the graph look like?
2. Draw the axes.
3. Work out the spacing for the axes.
4. Label the axes.
5. Will the axes work for the information I have?
6. Fill in the information.
7. Does it look right?
8. Check to see if a friend understands it.

Figure 1. A Teacher's Plan for Constructing a Graph

The lack of essential curriculum knowledge will restrict the students' involvement in plan construction. Hence, for novice or young learners, plans must be specific and detailed until the teaching and learning procedures are well-known and can be retrieved and used automatically. The number of steps required within a plan might then be reduced without losing functional value. As a consequence, proficient learners should not need a detailed plan for a familiar task—they may only require a general plan to cue the essential steps.

Role of coding

Coding refers to the input, storage and retrieval of information. It is the individual's method of organizing and integrating information to derive meaning from it. Coding occurs in either a concurrent or serial manner and each form is involved in solving curriculum tasks. If the information presented in a task is surveyable in total, a concurrent coding strategy would be used. If the information is surveyable only in parts, the coding strategy would be serial or sequential.

In some cases, success in a task can occur from the use of one organizational procedure. For example, serial coding would assist a student to blend sound "chunks" when reading words aloud. In other activities, competence with both concurrent and serial coding may be necessary for success. For instance, concurrent and serial coding are involved in completing a mental arithmetic calculation; serial coding strategies will help students keep the information "active" in their minds while concurrent coding enables them to establish the relationship between the elements of the problem and the elements in the number knowledge base.

Cooperative teaching and learning

In any classroom, the teacher is responsible for the selection of the academic content, the teaching sequence, and the organization of the daily and weekly schedule. In classrooms where there are students with very diverse abilities, this becomes a major hurdle for "generic" teaching approaches. In PBI, these responsibilities are extended to include the ability to develop plans and identify appropriate organization (i.e., coding) strategies for curriculum tasks. The teacher initially must develop plans so that they can be introduced as effective models for the students. Care must be taken to ensure that these plans are comprehensible to the students, especially those in the class who have a learning difficulty. This may involve re-drafting plans for students who have learning problems by adding additional steps.

While the teacher's responsibilities remain much the same in a PBI class as in others, students must become active participants in the evaluation of the effectiveness of teaching and learning. In this way, students are full members of the teaching-learning process, regardless of their level of ability. In effect, the use of PBI encourages students to become more involved. They learn that it is their responsibility to apply plans and coding strategies correctly when attempting classroom exercises. To assist in this activity, a variety of cooperative teaching and learning techniques could be employed (such as peer tutoring and reciprocal teaching) to ensure that instruction is student-oriented.

Cooperative teaching and learning strategies are important in assisting the academic and social growth of integrated and regular students in mainstream classes (Ashman & Elkins, 1990). Academically, they provide a decrease in the amount of "dead time" in which students receive no direct instruction (Polloway, Cronin, & Patton, 1986) while providing the teacher with an alternative to individualized instruction which is difficult to achieve in large classrooms (Zigmond, Levin, & Laurie, 1985). Greater peer interaction results in better reasoning skills for all group members and increases the likelihood of the transfer of skills (Johnson, Flanagan, Burge, Kaufman-Debriere, & Spellman, 1980).

Socially, cooperative teaching and learning permits acceptance of integrated students while ensuring that regular students are not disadvantaged academically (Madden & Slavin, 1983). Within the social group, student language is a most effective learning medium and hence, in PBI, student language and elaboration (that is, putting the plans and problem solving activities in students' own words) are the bases of integrating the new content and the new learning strategies. The learning process then becomes more meaningful to the student and more likely to be retained by them and generalized to other learning and problem solving activities inside and outside the classroom.

When PBI has been integrated effectively into the classroom, there is little need for segregated teaching (that is, for withdrawing students for individual or small group instruction) although the model can be used quite efficiently in a resource room or tutorial program (see Ashman, in press). In addition, PBI is particularly suited to team teaching situations in which a resource or consultant teacher provides additional assistance in the classroom to those students who are experiencing difficulty.

Curriculum content

One advantage of PBI over other information processing approaches comes from the integration of cognitive concepts into teaching strategies and curriculum areas. The model is neither complementary nor supplementary to the regular curriculum—it is an integral part of the curriculum and equally appropriate for academic and nonacademic tasks in primary and secondary schools. The usual curriculum content presented by the teacher requires little, if any, adaptation or extension.

An Assessment Aspect to PBI

When a student confronts a specific curriculum task, it is important to know how the task is approached. Assessment, then, focuses on each of the components in the "learning equation": curriculum knowledge about a particular task; the organizational or coding competence of the student and; existing problem solving skills which can be brought to bear on the specific curriculum task. In other words, the same task presented to students in a mainstream class may be completed easily by one student (e.g., of above average ability), partially by another student (e.g., of average ability), or it may not be completed at all by a student with a learning difficulty or an intellectual disability.

In developing PBI, we have not encouraged or included the administration of a battery of cognitive or academic achievement tests as this would add a considerable burden on teachers' time and would add little relevant information. We have remained more interested in the practical skills which students possess as they relate to the current curriculum tasks under consideration. We have conceptualized student performance into three categories, A, B and C.

Category A performance

For students operating in this category, their knowledge base is both consolidated and automated. Information is retrieved easily in terms of curriculum content, organized effectively, and plans are made and used efficiently. For a specific task, the learner is proficient. All prerequisite skills are available and the task can be solved without using a structured teaching sequence. In the classroom, the student may continue on the same task as a Category A learner (for example, attempting additional examples at the same level of difficulty), or may proceed to a higher level task at which performance is in Category B.

Category B performance

For students operating in this category, assistance is required to achieve a solution to the current task as one or more of the three elements may not be sufficiently developed or integrated to enable task completion. An instruction sequence is necessary to augment existing skills.

Category C performance

The student operating in this category has a knowledge base which does not contain the prerequisite knowledge/content, coding strategy, or plans which are needed for task completion. In other words, the task is beyond the ability of the learner and is not appropriate at this time. It is necessary to develop skills at a lower level in which the student would function at the Category B level.

On any curriculum task, only Category B learners would use the instruction sequence. Being capable of solving the task, Category A learners may be assigned a more sophisticated or higher level activity within the task analysis, or if the conditions are appropriate, act as peer tutors for those who are operating in Category B (or Category C but at a lower level task). As students become proficient in the use of coding strategies and plans, they attain Category A proficiency. In contrast, those in Category C have been confronted with an inappropriate task and the teacher must reconsider the selection of the task and commence the PBI sequence using a lower level task within the task analysis. In mixed ability classes, teachers often overlook the need to change the task or provide special assistance when students are experiencing difficulty or failure.

In any classroom (not only those containing mainstreamed students with special needs), it is expected that students' abilities will range across the three levels of performance. This means that teaching content and materials must be tailored to meet the curriculum and processing needs of each student and PBI is one effective way of achieving this end.

The PBI Sequence

The PBI model has gone through a number of developments since it was prepared first in 1988. The essential features have not changed though the way in which the components are presented has been refined. There are four instructional phases in the PBI model which incorporate four instructional processes (see Figure 2). While teachers who use PBI may impose their own personal imprint on it, it is most important that the instructional phases and processes are applied consistently, as there is a clear developmental sequence implied in the model. We will deal here with each of the instructional phases briefly.

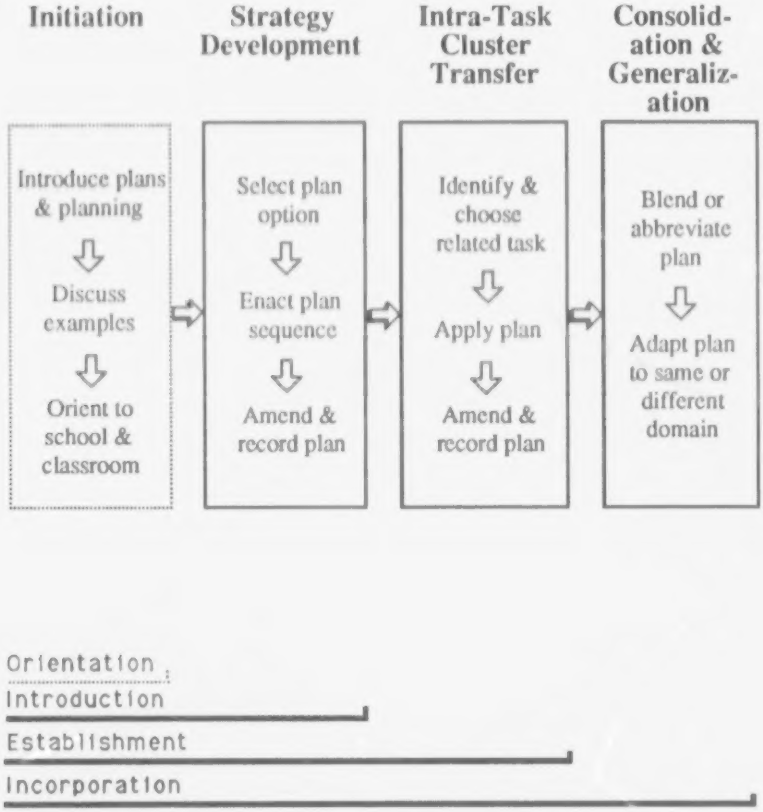
Initiation
Strategy Development
Intra-Task Cluster Transfer
Consolidation & Generalization
Introduce plans & planning
Discuss examples
Orient to school & classroom
Select plan option
Enact plan sequence
Amend & record plan
Identify & choose related task
Apply plan
Amend & record plan
Blend or abbreviate plan
Adapt plan to same or different domain
Orientation
Introduction
Establishment
Incorporation

Figure 2. The PBI Classroom Model

Orientation

The Orientation phase introduces students to the concepts of plans and planning and uses examples related to the students' lives and classroom activities. The teacher introduces (or reviews, in later PBI sequences) the relevant plans, coding strategies, and curriculum content. The teacher's role during this phase is to focus attention on the value of developing effective plans as a means of working systematically toward solving curriculum tasks. Plans are defined, described and exemplified so that the students understand how they are used, why they are used and where they can be used to help solve problems and to learn.

Students learn how information is presented within a curriculum topic and how they can capitalize on existing competencies to help them deal with new content. The involvement of students in referring to previous plans and coding activities is most important as previous successes and failures provide valuable insights into the value of plans and coding strategies in solving the task.

How long it takes to complete this phase will depend upon the age and ability of the students and their familiarity with the concepts. For example, it might take a few sessions to introduce the notion of planning to children in Grade 1, while those in Grade 3 or 4 will know generally what plans are and how they are used. Students in secondary grades will know what plans are, how they are used and will have little difficulty seeing how plans can be used in class activities.

Introduction

This is the main teaching-learning phase of *Process-Based Instruction* and the focus of attention is the problem solving process. This does not mean that the content is irrelevant. Rather, it is the teacher's intention to emphasize how the integration of content and teaching strategy is achieved.

During the Introduction phase students have their first systematic exposure to plans within curriculum areas. Strategy Development occurs through the systematic use of one of a number of plan options (see the section *Role of Plans* above). The plan may be amended or translated into student language by the students and recorded by students for use as needed. The translation of plans into student language is an important feature of PBI and is based on the belief that students use of plans will increase when they perceive that it is *their* plan rather then the teacher's. Plans and the planning process must be used systematically so that students can see the value of plans in solving curriculum tasks generally than in simply one task.

The Strategy Development phase typically involves a three-step cycle. Students establish a specific plan for a specific task, enact the plan, and state (or restate) the plan in their own words. The teacher will continue to assist students to consolidate the use of the plan using the chosen strategy until they are able to use the plan effectively on relevant examples. The teacher also determines the level of proficiency required to move to the next phase of instruction.

Establishment

In the information processing literature, transfer and generalization often are used interchangeably. In PBI, the concepts are defined in terms of the application of plans and strategies to *different aspects of the curriculum.* Transfer relates to the application of the plan to other examples within the same "task cluster." For example, a plan for two column addition in numeration must also hold true for the same mathematical operation in oral and written problems, measurement, money and space examples. The importance of this phase lies in the deliberate move away from the teacher-generated plan by requiring students to develop their *own* plans for similar tasks.

In contrast, generalization refers to the application of PBI to tasks that are outside the task cluster. For example, a plan for completing two column addition with carrying on paper may be adapted by a student when calculating how much change might be received after tendering money for the purchase of three items at a local store. In this example, the activity may be considered as part of a different task clusters as the student is operating in a completely different problem solving context. This is the focus of the Incorporation instructional phase.

Incorporation

The Incorporation phase occurs when the student is familiar with both the use and application of plans across a variety of examples. Consolidation and Generalization includes two processes. Consolidation occurs when the student is able to abbreviate plans to reduce the number of steps required or is able to blend plans together to form a more general plan. One of the most important features of the PBI model is the emphasis it places on ensuring that students are not "welded" to a specific plan but rather see the importance of plans and planning across a wide variety of learning situations. This is the focus of the Generalization aspect of the phase. Students are encouraged to seek opportunities for plans and planning in curriculum areas other than those for which specific plans have been made.

Movement through the phases will depend upon the needs of the students, the teachers and the curriculum content. What is of importance, especially when PBI becomes an integral part of classroom behaviour, is for teachers to keep the concepts of plans and planning visible even though the high profile of a plan on a blackboard or wall chart may be needed no longer.

Some Current Development in PBI

Process-Based Instruction has been trialled in several teaching settings. The first adaptation was the development of a model for use in a high school special classroom for students with mild intellectual disabilities. Students' performances were monitored over one school year and the results of the study showed significant gains over peers who also had a mild intellectual disability who received regular special class instruction, but without PBI. At the same time, PBI was used also in a mainstream high school class with a similar degree of success.

The model described above is being used in a number of New South Wales and Queensland schools and continues to generate considerable interest from teachers, support personnel and from school administrators in those states. Teachers in other states and territories in Australia, and overseas are now showing interest in the model.

To implement PBI effectively, teachers must first learn about plans and planning. Insight into the process can be demonstrated through exposure to a problem solving task which is as conceptually difficult for them as new curriculum content is for their students. An activity providing this awareness often constitutes the initial exercise in PBI inservice workshops. These training programs, which may be of a half or full day duration, introduce teachers and other personnel to the theory and procedures of Process-based Instruction through lectures, practical exercises and discussion.

PBI is most successful as a whole-school initiative. In this way, it adopts existing teacher support structures within the school. Moreover, when PBI operates across grades and subject areas, students can see the application of planning and decision making skills which are acquired in one class to activities undertaken in others. This provides continuity during the school year and the opportunity for students to develop these skills as they progress from one grade to another. While the whole-school approach seems to have many advantages, PBI can be used effectively by classroom teachers working on their own and by support (or remedial) teachers who work with individual children or in small groups.

At the present time, PBI operates as a multi-site project involving over 70 teachers in more than a dozen schools in two states and a research component has been established to evaluate the efficacy of the procedures. Undertaking classroom-based research has not been without difficulty as teachers take leave, seek transfers to other school to enhance their career prospects and there are many other educational priorities which are introduced on a regular basis which teachers must address. Data analyses have been undertaken, focusing upon those classes in which teachers have maintained a consistent high commitment to PBI. The data base includes over 50 classes using PBI and contrast classes which contain students undertaking regular school programs.

Teachers who have been using PBI actively (and even some of those who have not used PBI consistently) over two years have detailed the effectiveness of using plans and planning when teaching new content. They have reported that students not only demonstrate more on-task behaviour but also show more engaged time on-task. In these classes, students have commented that they learn more effectively and enjoy learning "the new way." Where teachers had not applied PBI strategies routinely in their classes, the reasons given do not reflect an opposition to the program, but rather a lack of time to acquire the skills of introducing and developing plans as a consequence of competing priorities.

Like many other classroom-based interventions, generating efficacy data is problematic. Our observations and the reports of those involved in the project suggest that PBI is a potent strategy, consistent with good teaching practice and attractive to classroom teachers and students alike. Achievement data being generated from the project seems to confirm the utility of the approach.

There appear to be several reasons why *Process-Based Instruction* is successful. The first comes from the application of information processing theory and concepts to classroom activities and curriculum content. Relevance and efficacy are two fundamental principles which apply equally to classes across the age and ability dimensions.

The second key to the success of PBI is the identification of students for whom instruction is appropriate for the specific academic task at hand (Category A, B, or C learners). Only when the academic tack is appropriate is it possible to effect change. This assessment procedure directs the teacher toward the selection of appropriate materials and activities for individual students or for small groups. Hence, PBI is an appropriate instructional approach for mixed ability, mainstream classes.

The third key is the transfer of "ownership" of both plans and appropriate coding strategies from the teacher to the student. One of the important benefits of this transfer is the student's acceptance of responsibility for learning. Students will accept this responsibility only if they have a positive attributional belief system.

The fourth key to success is the explicit division of transfer within the task cluster and generalization. It is in the consolidation and generalization phase, when plans are streamlined that students come to understand the concept of generalization beyond the task cluster in which the initial learning took place.

The final key to success is the willingness of the teacher to adapt current teaching strategies to include PBI. While the terminology used to describe PBI may be "new", some teachers may perceive that PBI is neither novel nor necessarily innovative. To some extent, this is true. PBI is essentially appropriate student oriented teaching practice and is consistent with the methods used by many teachers who have mixed ability classes. However, PBI is more than just good practice. It combines logical and consistent teaching practice with procedures that have been derived from sound educational and psychological research.

Author Note

More information about *Process-Based Instruction* may be obtained from the authors.

References

Alterman, R. (1988). Adaptive planning. *Cognitive Science, 12*, 393-421.

Anderson, J.R. (Ed.) (1981). *Cognitive skills and their acquisition*. Hillsdale, NJ: Erlbaum.

Ashman, A.F. (in press). Process-based instruction: Integrating assessment and instruction. In H.C. Haywood & D. Tzuriel (Eds.), *Dynamic assessment and instruction*. Hillsdale, NJ: Erlbaum.

Ashman, A.F., & Conway, R.N.F. (1989). *Cognitive strategies for special education*. London: Routledge.

Ashman, A.F., & Elkins, J. (1990). Cooperative learning among special students. In H.C. Foot, M.J. Morgan & R.H. Shute (Eds.), *Children helping children* (pp. 207-223). Chichester, UK: John Wiley.

Berger, R.M., Guilford, J.P., & Christensen, P.R. (1957). A factor-analytic study of planning abilities. *Psychological Monographs*, 71, Whole No. 435.

Brown, A.L., & Palincsar, A.S. (1982). *Inducing strategic learning from texts by means of informed, self-control training* (Technical Report No. 262). Champaign, IL: University of Illinois at Urbana-Champaign, Center for the Study of Reading.

Fredericksen, N. (1984). Implications of cognitive theory for instruction in problem solving. *Review of Educational Research, 54*, 363-407.

Groteluschen, A.K., Borkowski, J.G., & Hale, C. (1990). Strategy instruction is often insufficient: Addressing the interdependency of executive and attributional processes. In T.E. Scruggs & B.Y.L. Wong (Eds.), *Intervention research in learning disabilities* (pp. 81-101). New York: Springer-Verlag.

Hayes-Roth, B., & Hayes-Roth, F. (1979). A cognitive model of planning. *Cognitive Science, 3*, 275-310.

Johnson, J.L., Flanagan, K., Burge, M.E., Kaufman-Debriere, S., & Spellman, C.R. (1980). Interactive individualized instruction with small groups of severely handicapped students. *Education and Training of the Mentally Retarded, 15*, 230-237.

Logan, G.D., & Barber, C.Y. (1985). On the ability to inhibit complex thoughts: A stop-signal study of arithmetic. *Bulletin of the Psychonomic Society, 23*, 371-373.

Luria, A.R. (1973). *The working brain.*. Harmondsworth, England: Penguin.

Madden, N.A., & Slavin, R.E. (1983). Mainstreaming students with mild handicaps: Academic and social outcomes. *Review of Educational Research, 53*, 519-569.

Marsh, G.E., Price, B.J., & Smith, T.E.C. (1983). *Teaching mildly handicapped children: Methods and materials*. St. Louis: C.V. Mosey.

Miller, G.A., Galanter, E.H., & Pribram, K.H. (1960). *Plans and the structure of behavior*. New York: Holt, Rinehart & Winston.

Polloway, E.A., Cronin, M.E., & Patton, J.R. (1986). The efficacy of group versus one-to-one instruction: A review. *Remedial and Special Education*, 7, 22-30.

Smith, P.K., & Dutton, S. (1979). Play and training in direct and innovative problem solving. *Child Development, 50*, 830-836.

Spitz, H.H., Minsky, S.K., & Bessellieu, C.L. (1985). Influence of planning time and first-move strategy on Tower of Hanoi problem-solving performance of mentally retarded young adults and nonretarded children. *American Journal of Mental Deficiency, 90*, 46-56.

Vaughn, S., & Bos, C.S. (Eds.) (1987). *Research in learning disabilities: Issues and future directions*. London: Taylor & Francis.

Wong, B.Y.L. (1986). A cognitive approach to spelling. *Exceptional Children, 53*, 169-173.

Zigmond, N., Levin, E., & Laurie, T.E. (1985). Managing the mainstream: An analysis of teachers' attitudes and student performance in mainstream high school programs. *Journal of Learning Disabilities, 18*, 535-541.

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CHAPTER 7

Mainstreaming of Secondary Students with Sensory Disability

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Even strong advocates of integration and mainstreaming of primary school pupils with disability will sometimes baulk at the idea of such educational placements occurring in the secondary school. The social milieu of secondary schools is quite different to that of primary schools, and various organisational and attitudinal factors combine to make everyday life more difficult for high school students than for their younger sisters and brothers. The classroom and playground expectations, the large numbers, the lack of consistency of rooms and teachers and the orientation towards subject content rather than individual needs all contribute to the difficulties experienced by many secondary students. These difficulties are likely to be magnified if the child has a disability.

Despite these potential problems, there are many arguments why children with a sensory disability should receive their education in regular schools, preferably in regular classes. Some of these arguments are based on the assumption that children need to be given as many choices as possible about their social, vocational and educational futures. It can be argued that a student whose educational experiences have been totally or primarily in a relatively sheltered setting, shared by students with a similar disability, will be poorly prepared for interaction with people without disability on leaving school.

If it is assumed, for example, that as an adult, a student with severe hearing loss will wish to mix only with other people with a similar disability,

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then there is no point in providing opportunities for broader interaction. The decision to limit choice is, however, difficult to substantiate as a preferred option for any student. A frequently stated view is that one of the primary goals of education is to provide the person with as much opportunity for self-determination as possible. There is a logical corollary that each person's education will need to occur in an environment which prepares the person for making those choices.

In the case of hearing impairment, regular classes provide clear benefits in terms of good language models and opportunity to practice communication skills. However, there are also potential disadvantages in mainstreaming children with hearing impairment. Possible disadvantages include social isolation, lack of specialised teaching and inappropriate curricula. There are fewer obvious disadvantages in the mainstreaming of children with a visual disability. The communication problems which hinder interaction between hearing and non-hearing people are not usually present in the case of visual impairment, and the person's disability is more easily understood and accommodated. There may, nevertheless, be disadvantages in removing specialised services from those with visual problems (Gallagher, 1988).

Despite the potential difficulties of secondary mainstreaming, the evidence from America is that older children with a sensory disability are more likely to be mainstreamed than younger children (Strong, Charlson, & Gold, 1987). Most State Education Departments in Australia have policies which lead to a similar pattern—mainstreaming of children with hearing or visual disability tends to increase with age. Such practices require evaluation.

There is a considerable literature on mainstreaming children with sensory disability. Much of the research has focused on the attitudes of teachers or peers (Chorost, 1988) and there have also been studies on interaction (Lindsay & Dickinson, 1987) and attainment (Zwiebel & Allen, 1988). The research reported here involved an evaluation of the success of secondary school mainstreaming of 16 students with sensory disability. The research used intensive classroom observation, as well as attainment testing, and interviews with parents, teachers and peers and the target student, and was part of a larger study of integration of children with disabilities in NSW schools (Center, Ward, Ferguson, Conway, & Linfoot, 1989). The Stage II report (Center et al., 1989) contains results of the evaluation of the integration of students with intellectual disability, physical disability, multiple disabilities and learning difficulties, as well as some of the data contained in this report.

Methodology

Sixteen students mainstreamed in secondary schools were selected randomly from lists provided by central and regional integration offices from all metropolitan and four country regions, and the Metropolitan West region of the Catholic Education Office. Of the students observed, nine had visual disabilities while seven had a hearing impairment. Visual disabilities ranged from low vision through to total blindness and the range of hearing disability was from a mild to a profound loss. Students were selected predominantly from Year 7 or Year 10 to measure the success of integration, both upon entering high school and as they approached their last two years of secondary schooling. The exceptions were two students in Year 11 who were replacements for the two originally selected from Year 10 classes.

Data were collected based on: (a) qualitative observations of the student in both the classroom and playground, (b) measures of student/peer and student/teacher interactions, (c) amount of academic and learning time, (d) measures of performance in Mathematics and Reading in comparison to class peers (April and November), and (e) interviews with school personnel and parents, together with measures of school personnel attitudes to integration and peer measures of social acceptability.

All data gathered were incorporated with two indices of integration—an index of academic integration and an index of social integration (see Center et al., 1989, pp. 10–12). The Academic Integration Index incorporated data on teacher and parent rating of academic progress, progress on academic tasks, the appropriateness of content and degree of modification of content presented, the amount of withdrawal from class for academic instruction and the time on-task.

The Index of Social Integration incorporated data on teacher, parent and peer ratings of social acceptability, changes in social acceptability over 6 months, observer ratings of class behaviour with peers, access to school areas, participation in activities and peer interactions out of school.

The Total Integration Index was an average of the two indices. A Validation Index was established based on the degree of satisfaction expressed for present and continued integration, by teachers, parents and students. Separate indices were created on the appropriateness of support and the amount of teaching structure (regularity of monitoring workload, clarity of presentation including sequenced lessons in direction and provision of lesson outlines). Both these indices were previously found to be directly related to the success of integration (Center, Ferguson, & Ward, 1988).

Results

A Total Integration Index of above 90% indicates successful integration. A value of 80–90% suggests that the integration may be problematic and doubts are being expressed. A figure below 80% indicates unsuccessful integration.

The results of Table 1 indicate that only one student (Case 4) could be considered unsuccessfully integrated while three further cases (Cases 3, 7 and 12), whose Integration Indices were low but whose Validation Indices were high, were categorised as anomalous. These results contrast with those of the Stage 1 study where all the primary students with sensory disabilities had Integration and Validation indices well above the nominal cut-off point for success. Viewed as a group, the mean indices suggest that as a group, students with sensory disabilities are successfully integrated in mainstream classes.

Table 1. Summary Data for Students with Sensory Disabilities

Case No.	Disability	Grade	Academic Index %	Social Index %	Total Integration %	Validation Index %	Appropriate Support %	Structured Teaching %	Staff Attitude (1-5)
1	Visual Impairment	7	100	94	97	92	95	68.5	5
2	Visual Impairment	8	98	83	91	100	100	37.0	5
3*	Hearing Impairment	7	85	58	72	92	87.5	79.6	3
4**	Hearing Impairment	10	72	60	66	68	50	64.4	2
5	Visual Impairment	10	96	89	93	92	100	29.9	5
6	Visual Impairment	7	88	81	84	88	75	32.3	4
7*	Visual Impairment	11	71	63	67	92	95	6.5	1.5
8	Visual Impairment	10	99	83	91	92	100	52.8	4
9	Visual Impairment	7	85	76	81	92	82.5	33.3	4
10	Hearing Impairment	10	91	87	89	100	95	24.1	5
11	Visual Impairment	7	94	82	88	92	95	29.6	5
12*	Visual Impairment	7	73	71	72	92	60	57.4	3.5
13	Hearing Impairment	11	100	97	99	100	100	51.9	5
14	Visual Impairment	10	99	95	97	100	NA	60.2	5
15	Hearing Impairment	7	90	79	85	92	85	66.7	5
16	Hearing Impairment	10	87	89	88	92	50	55.6	4
	Mean (*N* = 16)		89.3	80.4	85.0	92.3	84.7	46.9	4.1

*Anomaly—see text
**Less than effective integration

The factors that appears to be most closely associated with successful integration for this group of students are positive staff attitudes towards integration and appropriate resource support, both of which are pleasingly high in the more difficult and diverse environment of a high school. While data in Table 1 suggest that the structured teaching style of the teachers sampled appears to be markedly lower than that found among teachers in primary schools, it is a much more problematic variable to measure in high schools, and has less direct relevance to students' success.

An analysis of the case study of the unsuccessful student (Case 4) indicates that a number of personal factors were more closely associated with failure than was her hearing loss. Other students with hearing impairment in the same class were successfully integrated, as were younger hearing impaired students in the school. Teachers were frustrated by this student's unwillingness to attempt classwork, which was probably related to her borderline intellectual disability. Furthermore her peers in the class were reluctant to work with the student because of her refusal to complete work and because of her unattractive physical attributes. However, other students with a hearing loss and no perceived personal anomalies in the class were accepted as part of the social structure of the class. The failure of the integration from both social and academic perspectives, therefore, cannot be entirely attributed to the student's sensory disability.

In the three cases of partially successful integration, confounding factors, not directly related to the disability, can again be identified. In Case 3, the student was in Year 7, having spent the previous year in a support unit for hearing impaired students as a transition from primary to secondary school. This transition year had separated the student from her primary peer group and resulted in her entering a high school with very few friends. The absence of supportive peers became a matter of great concern to the student on entering a new school since she was placed in a difficult class. While the student was capable academically, it was her poor social relationships which primarily accounted for the low Total Integration Index. Although the principal saw the integration as being successful, her teachers were more ambivalent, with one teacher being completely unaware that the student had a hearing loss. Her parents were very supportive and had insisted that she be placed in a regular school, rather than a support unit. They had also approached teachers at the school seeking assistance in fostering social interactions within the classroom. The inability of teachers and support staff to address this vital issue highlights the problems that can occur at the high school level where good communications between many people are essential for the successful integration of a student with a disability.

A second student, this time in Year 11 (Case 7) could also be considered as only marginally successfully integrated at the time of the study. This student had wanted to leave school at the end of Year 10, was persuaded by parents to stay on. Her consequent lack of motivation, both in academic and social areas resulted in a low Total Integration Index. As a result of the student's performance, teachers had expressed reluctance to accept further students with such disabilities into the school, without realising that family characteristics may have contributed to the difficulties arising from the sensory loss.

The final partially successful case (Case 12) was a boy in Year 7 with low vision. A major contributing factor was the placement of the boy in the lowest ability class in which there was a very large proportion of students with severe learning and behaviour problems, creating a disruptive environment. The student was tolerated by the other students and appeared to have developed his own social coping strategies to minimise his atypicality. The only successful teacher with this class was a primary trained teacher who was highly organised with clear objectives, and who had no discipline problems. The target student's low Integration Index would appear to be the result of inappropriate placement and management, rather than a direct correlate of his disability. It is interesting to note that, with regard to the three cases categorised as anomalous, their teachers favoured continued mainstreaming, despite low academic and social outcomes. It seems that, at the high school level teachers were reacting specifically to individual students, rather than to integration in general and, despite a certain amount of disenchantment with their students' achievements, still believed that mainstreaming was a legitimate option for students with sensory disabilities.

Discussion

The data indicate that high school students with sensory disabilities were generally extremely well integrated into the mainstream, although integration and Validation Indices were lower for secondary students than for primary students in Stage 1.

At the secondary level successful students with sensory impairment were highly motivated and keen to be regarded as part of the regular school. Furthermore, success did not seem to be associated with type of sensory impairment (hearing or visual), degree of disability (mild or moderate) or area of schooling (metropolitan versus rural). Rather, it appeared to be the cognitive and affective characteristics of the students and the classroom ecology which affected the quality of their integration. For example, students of high ability, placed in upper stream classes (e.g., Case 2) were extremely successful, both academically and socially. However, very often students with sensory impairment were placed in lower stream classes with students who had learning and/or behavioural problems. Social acceptance in these classes appeared to be more difficult to achieve for students with sensory disabilities, although the reasons given for rejection by other students were often to do with less desirable physical attributes (e.g., obesity), rather than the presenting disability. It would seem that when sensory impairment is compounded by some other cognitive or affective problem, social acceptance in these classes requires skilled management on the part of all relevant teachers. In view of this need and the overall low structure scores for the sample of high school teachers, it is critical that all teachers have access to skilled itinerant support staff who can provide them with strategies in the classroom for both academic and social success.

An interesting aspect of the study was the wide variability in the attitude of class teachers towards the major support service for students with sensory disabilities, itinerant teachers. In some cases, particularly where the itinerant teacher was based in the school, they were regarded as a major asset. Some class teachers thought, however, that the itinerant service was too limited to be of real assistance. Interestingly, the withdrawal of integrated students for assistance, whilst welcomed by class teachers, was not favoured by integrated students, many of whom preferred to rely on classmates for help, rather than be stigmatised by such assistance. It is also more difficult for support staff to assist regular students when they do not observe them in their home classrooms.

In contrast, some itinerant teachers complained of class teachers not implementing advice on strategies to be used with students who had a sensory disability. Itinerant teachers often felt that they had insufficient time to fully meet the needs of students and had additional difficulties when confronted with casual teachers who were unaware of the itinerant teacher's role. Furthermore, itinerant teachers often found difficulties assisting students in higher grades due to the complexity of subject content.

In summary, although the case studies generally detail successful experiences, a few problems still need to be addressed. In the first place, there needs to be greater communication between all those involved in the education of the student with sensory disabilities at high school—student, parent, classroom teachers, teachers in the playground and the itinerant support. Parents must be able to communicate their wishes and supply vital background information, while the student must also be able to voice his desires with regard to assistance. There also needs to be a greater liaison between itinerant support and classroom teachers, particularly in the higher years and the whole question of withdrawal as the most efficient form of assistance needs to be investigated. If students wish to avoid the stigmatisation of withdrawal, if teachers feel the service is limited and support staff do not feel their advice is being implemented, then the current method of assistance warrants further investigation. Perhaps a named person, as suggested by the Warnock Report (1978) could become the student's advocate within the school and coordinate the student's total school program.

References

Center, Y., Ferguson, C., & Ward, J. (1988). *The integration of children with disabilities into regular classes (mainstreaming)—A naturalistic study. Stage I Report.* Sydney: Macquarie University.

Center, Y., Ward, J., Ferguson, C., Conway, R., & Linfoot, K. (1989). *The integration of children with disabilities into regular schools—A naturalistic study. Stage 2 Report.* Sydney: Macquarie University.

Chorost, S. (1988). The hearing-impaired child in the regular classroom: A survey of the attitudes of regular classroom teachers. *Volta Review, 90,* 7–12.

Gallagher, W.F. (1988). Categorical services in the age of integration: paradox or contradiction. *Journal of Visual Impairment and Blindness*, *82*, 226–229.

Lindsay, G., & Dickinson, D. (1987). Integration of profoundly hearing-impaired children into a nursery setting. *Journal of the British Association of Teachers of the Deaf*, *11*, 1–7.

Strong, M., Charlson, E.S., & Gold, R. (1987). Mainstreaming programs for students with hearing impairments. *The Exceptional Child*, *34*, 181–195.

Warnock, M. (1978). *Special education needs. The report of the committee of enquiry into the education of handicapped children and young people*. London: HMSO.

Zwiebel, A., & Allen, T. (1988). Mathematics achievement of hearing-impaired students in different educational settings: A cross-cultural perspective. *Volta Review*, *90*, 287–293.

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CHAPTER 8

Students with Learning Difficulties in Secondary Schools: A Whole School Approach

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Learning difficulties is a generic term used to describe a heterogeneous group of students who are not coping, or achieving their potential within the regular school setting. The learning difficulties population has been defined as having:

> A disorder of one or more of the basic psychological processes involved in understanding or in using language spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations [and] encompasses other specific physical, psychological, emotional, social and environmental difficulties such as poverty, cultural dislocation, unfamiliarity with English language and inappropriate and inadequate teaching methods. (Cadman, 1976, p. 2)

Two of the largest populations included under the learning difficulties label are those who have a learning disability and those who have a mild intellectual disability. Students with learning disabilities are those with "normal" intelligence who display a significant discrepancy between achievement and aptitude. Students with a mild intellectual disability have deficits in both cognitive and adaptive skills. Therefore, teachers working in the domain of supported programs need a wide range of professional skills

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which include an understanding of applied behavioural analysis, cognitive strategy training, assessment, consultation, counselling, remediation and curriculum adaptation.

One Brisbane high school located in a middle class socioeconomic suburb recorded that nearly 25% of its Year 8 students (55 out of 222) had reading comprehension scores below the 10 years 6 months level on a group comprehension test, while 7.2% of the students (16 out of 222) had comprehension skills below 8 years 6 months.

The problem goes deeper than just inadequate reading skills. A significant number of lower secondary school students were unable to do three tasks: (a) take notes from the teacher's oral presentations, (b) use the set textbooks to gain the information required for a task, and (c) write summaries or find the main ideas associated with curriculum content (Hay, in press).

The Present Situation

In Queensland, the trend has been to provide three modes of service to regular secondary schools (Hay, 1990).

1. The special needs support group (SNSG) of three to four staff members, servicing the needs of the whole school (particularly the learning difficulties population).
2. A secondary resource or remedial teacher where no special needs support group exists.
3. A special education class based in the high school—usually an "integration" class or units for students with a mild intellectual disability or an identified disability population.

The overall role of these services is support for students and teachers. Models 1 and 2 use either consultation support to teachers or short term withdrawal support of targeted students (Hay, 1988).

The Nature of the Problem in Secondary Education

The notion of a service that supports students in the secondary schools, although admirable in its ideal, may be at odds with one of the historic functions of secondary schools, that of sorting, evaluating and excluding students. Writing on this point Middleton, Brennan, O'Neill and Wootten (1986) claim that Australian secondary education "assumed that only the potential matriculants would continue through to Years 11 and 12 [with] the 'dropping out' of the less able students as they reached the leaving age" of 15 years (p. 65). In addition the concept of a core curriculum of standard subjects that progresses through the grades "provides a very effective way of differentiating students, of sorting and grading and ultimately excluding them" (p. 65). There are, however, indications that Queensland secondary teachers are accepting a broader range of educational objectives. In the Board of Teacher Education (1981) study which asked secondary school teachers to establish priorities for their aims for secondary education, the teachers ranked "the need to develop in each student a sense of personal worth and esteem," and "teaching basic literacy and numeracy skills" ahead of "preparing students to enter tertiary education." Similarly, rather than seeing secondary schools as having a narrow focus, the National Board of Employment, Education and Training (1990) described secondary schools that serviced disadvantaged populations as "humane, lively places run by interested professionals" (p. 1).

The need to consider the aspirations and achievements of the whole school population is not based on ethical considerations alone. The reality is that Australia can not afford the economic and social wastage associated with adolescents and adults having inadequate literacy or numeracy skills. Hartley (1989), for example, maintained that the lack of literacy skills reduced students' employment opportunities and increased the social welfare expectation. Further, the lack of skills reduced people's motivation, confidence and ability to successfully participate within Australian society.

The Australian Government policy is that all students are encouraged to continue on to Years 11 and 12 (Commonwealth Schools Commission, 1987). The situation is that not only have retention rates increased but so, too, has the total population size of students attending secondary schools in Queensland (see Table 1).

Table 1 Queensland's Enrolments and Retention Rates for Year 12

Year	Year 12 Enrolment	Retention rates
1971	9683	30.2
1975	11318	32.2
1980	14934	38.0
1985	22698	55.2
1989	32965	69.6

(Source: *The Review of Tertiary Entrance in Queensland*, Viviani, 1990, p. 64)

This continuation of a larger number of present students on to Year 12 than in earlier years reflects a response to reduced employment options for young people (Maxwell, Marshall, Walton, & Baker, 1989). Unfortunately, the increasing retention rates within secondary schools have not always been matched by an increase in programs or services for students in need. Coupled with this, there has also been an increasing trend to have students with mildly handicapping conditions mainstreamed into regular schools (Ashman & Elkins, 1990). Overall, there is no easy answer to the question of the function of secondary schools. The two secondary school functions of tertiary preparation and preparation for life for all students should not be mutually exclusive. The two functions do, however, have the potential to be competitive. Viviani (1990) maintains that:

> ... the tension between the educational needs of those [students] bound for tertiary education and those who are not remains in part unresolved in 1990, and is a major factor contributing to our tertiary entry problem. (p. 66)

Secondary school curricula are subject and content based and are characterized mainly by teacher-directedness which focuses on a Year 12 exit point at the top of the secondary curriculum ladder (Brady, 1990). The difficulty is that many students with special needs require additional teaching time, more guided practice than usually given and individualisation of the curriculum (Chapman, 1988, Mercer & Mercer, 1989). Since secondary classes are mainly organized by age and subjects it is difficult for teachers in regular settings to individualise within the confines of a set curriculum that imposes pressures to cover a prescribed content within a set period of time. Basically, students with special needs often require programs that are individualised and properly resourced and planned. These programs also need to be delivered in a cooperative rather than a competitive learning environment (Chapman, 1988). Apart from the difference in curriculum orientation, Smith and Goldthorpe (1988) claim that there are a number of differences between special education and regular education such as: (a) child-centred vs knowledge-centred curriculum; (b) concreteness vs abstractness of curricula; (c) one teacher to one class vs several teachers and classes; (d) pastoral vs formal teaching styles; (e) cooperation vs competition; and (f) small vs large class size. The challenge is to incorporate the best practices of special education within a secondary school setting. Those educators and community members who argue for social justice and equality of opportunity must also argue for resources, programs and services that will assist teachers to educate students with learning difficulties in regular education settings. Furthermore, it must be recognized that while providing for students with mild academic handicaps within the regular school by adapting school programs, students with significant handicaps may require alternative programs (either within the secondary school or on alternative campuses).

What are Some Possible Solutions?

There needs to be a stronger recognition that one of the functions of secondary education is the academic and sound emotional development of all students and that this is a whole-school responsibility which involves all participants in the educational process. The whole-school approach has as its basic assumption the awareness that schools are full of good practices with caring and positive attitudes towards the social and academic development of students (Copeland, 1990; Kloska, 1989). The whole-schools approach assumes, also, that support staff will have the flexibility to provide a range of services to the school such as: in-class support, withdrawal groups, opportunities for teacher observation and feedback, liaison with other schools and external agencies, providing inservice education, preparation of appropriate resources and being involved in extension activities within the secondary school (such as personal development, protective behaviours, study skills, work experience, computer assisted learning, peer tutoring and learning assistance programs). An analysis of the literature on the needs of secondary students with learning problems indicates that at least five types of services are identified: (a) academic remediation, (b) teaching students learning strategies, (c) assisting students in regular classes, (d) teaching functional living skills, and (e) career related instruction (Mercer & Mercer, 1989).

Regular class teachers can assist students with learning difficulties if they explain new vocabulary and demonstrate skills associated with learning-through-modelling for students and providing feedback and explanations (Hay, in press). Reviews of the literature on the academic performance of students with learning difficulties in regular classrooms report that these students can achieve when: (a) engaged academic time is increased, (b) questions are directed to all students, (c) there is increased wait time and use of rephrasing when questioning all students, (d) teachers use a problem solving approach which focuses on the steps in the learning sequence, (e) there is stress on cooperative rather that competitive classroom activity, and (f) the error rate is low when students are acquiring the new skill (Gersten & Woodward, 1990; Murphy & Hallinger, 1989).

Make support staff effective

Support staff in secondary schools will be less effective in assisting students with learning difficulties if they are required to teach a high percentage of mainstream content subjects to regular students and thus only be able to supply a part-time service to students with special needs. In addition, they will be less effective if given inadequate accommodation for the conduct of classes for students with special needs or for parent-teacher meetings. It is also often inappropriate for support staff to be expected to adhere to a standard curriculum and its rate of presentation when taking classes of students with learning difficulties. There is the concern that administrators may over-program support teachers (even for the less able students) which then gives them little opportunity or flexibility to provide assistance to a range of students, their parents and members of the school staff. Support staff will also be less effective if they are treated as internal relieving teachers, thus, preventing them from providing a continuous program to students and staff.

In situations where the support staff are asked to fulfil roles that do not relate to their professional orientation or training the message is clear—support staff and their clients are less valued by the school. If a school has only one member of staff acting in a support capacity to a large number of pupils, the support teacher can only provide a limited service and may quickly face the possibility of becoming stressed. Support teachers have been identified as a highly stressed group; firstly, because of the role confusion associated with their position and the number of clients they are expected to service (Thomson, 1987) and, secondly, because support staff are often teachers who are conscientious and highly committed (O'Connor & Clarke, 1990). Hopefully, as more support staff are appointed to secondary schools and their roles become more widely known, the incidences of their inappropriate use and unreal expectations held of them will reduce.

Program options

One practice which needs review if the learning difficulty population is going to be accommodated in regular classes, is the presentation of an alternative curriculum strands versus delayed specialization. In secondary schools delayed specialization has been introduced so that students will remain in at least the middle strand of subjects for as long as possible. This procedure has been implemented to ensure that students are not "disadvantaged" in their career choice by not having the prerequisites for advanced subjects (Commonwealth Schools Commission, 1987). As a result students in the secondary school sometimes must wait until Year 11 before a wider range of alternative programs are offered. This means that students with learning difficulties often function at the "very limited achievement" level for mainstream subjects undertaken in Years 9 and 10. Less able students are increasingly alienated by this process, their self-perception suffers and they are less able to develop usable skills that will equip them for employment or life. The consequence is that sometimes the tone of the school suffers as students in inappropriate programs become either depressed or disruptive. Power (1987) underscores this problem:

> The more we try to contain adolescents in an environment which is not meeting their needs and not satisfying, the more they will begin to resist. The active resisters become the toughs in our schools. For them rebellion and stirring others becomes a way to protect their identity and self-interest. (p. 17)

If secondary schools are going to cater for students with diverse abilities, a broader range and mix of subjects and courses than presently available needs to be considered, particularly for the junior school. Furthermore, greater flexibility through shorter courses and alternative student groupings need to be achieved than at present. One possible solution is to develop module sets for secondary subjects so that students could then have an expanded choice of modules and capable students may advance through the modules faster than those of lower ability. If students are having difficulty, a wider range of modules at an appropriate level can be selected. The advantages of this system include expanded choice and, with time, sensitive and relevant matches with students' abilities (Maxwell et al., 1989).

All modules need not be offered at the one secondary campus. At the senior school level, for example, units of work might be selected from TAFE colleges, other secondary schools, specialist high schools or community centres of learning so that "a broad and balanced general education" can be offered (Commonwealth Schools Commission, 1987, p. 109).

The Beazley Report (1984) on the Western Australian education system recommended the unit approach within secondary education. However, it favoured a compulsory core provision for all students with choice increasing as students progressed through the school. The units or modules would be a semester, or term, in length and vertically timetabled so that interest and ability became the criteria for grouping, rather than age. Vertical grouping is the name of the system whereby students in different year groups are timetabled to be taught together for a particular subject (Middleton et al., 1986).

Similar models are used in many North American high schools where students have to complete a certain number of "classes" from a range of vocational, social and tertiary-orientated subjects before graduating from high school. The idea of units is the model which universities use so that students have choices within their major discipline or subject areas. In Australia, secondary school teachers in art, social sciences, music, physical education, health and sport have been keen to adopt some form of vertical grouping (Maxwell et al., 1989) but the concept can be extended into other curriculum domains as well. Modularisation of the whole school curriculum would, of course, require a system level change and the cooperation of tertiary institutions and secondary education.

Which students are involved?

Who should enrol in alternative programs and what is to be the nature of these programs? When students have a history of very limited academic achievement it is likely they will benefit from alternative programming. Nevertheless, there is always the concern that students with low expectations of their ability, rather than low ability per se, will be attracted to such programs. The complexity of the issue has been identified in the Australian National Board of Employment, Education and Training (1990) report on disadvantaged communities:

> The issue of the 'alternative' versus 'mainstream' paths for disadvantaged students is still far from resolved. On one side is the reasoning that if students are not going to be anything like successful in 'mainstream', high status courses in proportion to their numbers, then their education should at least consist of content and processes in which they can be successful and which are more suited to their cultural style and needs. Coarsely, they might as well get something out of education which may be of value, rather than nothing at all. On the other hand it is argued that such thinking effectively confirms the notion that students will not have access to the next phase of education and that much of what is taught in higher status courses is of value, is worth mastering and can be mastered by these students. Both lines of argument can be seen in current system practices and innovations. (p. 33)

Since degree of learning difficulty may be seen as a continuum, there is a need to have a continuum of services and options. Hence, students who are identified as having learning difficulties because of some cultural or socioeconomic disadvantage can be supported within mainstream classes. For those students who have a learning difficulty resulting from some form of cognitive impairment alternative programming may be the most appropriate option. Failure to provide alternative curricula merely maintains the status quo.

Pastoral care

A further method of catering for students with learning difficulties within a whole school secondary environment is through pastoral care classes. Pastoral care encourages meaningful communication and understanding to develop between secondary teachers, students and parents (Ribbins, 1989). It is an integrated activity for all secondary school students, including those identified with learning difficulties (Galloway, 1989). At its most simple level, pastoral care involves the allocation of one teacher to one group of secondary school students to assist with the dissemination of information and the monitoring and tracking of student performance. Pastoral care provides a contact point between the school and the home, enabling some basic counselling and advocacy to occur for the students and the referral of students to appropriate agencies when needed (e.g., school counsellor, support staff).

Pastoral care can be particularly effective when it takes on a proactive role to address issues such as coping with change, study skills, making friends and subject selection. The Queensland Guidance and Counselling Service has developed a guidance, pastoral care and tutoring package which provides resources, structured activities and lesson plans that regular secondary teachers and support teachers can use to cater for all students, including those with learning difficulties (McMahon & McCowan, 1990). The guidance tutoring program targets six themes which receive different emphases depending on the students' grade level and the time of the school year. The six themes are: (a) care and support, (b) interpersonal skills, (c) group skills, (d) learning to learn, (e) future planning, and (f) health and personal safety (Queensland Department of Education, Guidance and Counselling Services, 1989).

Support staff need to be proactive and target "at risk" students for intervention. This may require consideration of different populations of students at different times of the year. Historically, the populations most identified are Year 8 students, in the domains of study skills, research skills, reading development and the comprehension of expository texts. These areas of weakness can be systematically handled in an introductory unit of work for all Year 8 students, with the identification and support of "at risk" or marginal students occurring throughout the year. The provision of services for Year 8 students should not be at the expense of services for other year groups or populations (e.g., migrant students). The ideal objective is to target and match school and support staff and programs to specific students.

Interdisciplinary team approaches

Support staff need to function within a team which ideally involves the school counsellor, curriculum subject leaders and, most importantly, school administrators. In this team approach there is a greater likelihood that students at risk are identified and effective programs developed. Since catering for a range of students will require organizational decisions and innovation it is essential that administrators and other members of the school team understand and value the ideas proposed, cooperate with those involved and provide appropriate support for those teachers implementing the programs. Since the nature of teaching is often isolating, much can be learned by visiting other schools and seeing other teachers and professionals at work in different settings and by exchanging ideas and experiences (Mittler, 1989).

Presently, support staff have limited hierarchical position within the structure of Queensland Secondary Education and so are, sometimes, dependent on the good will of school administrators and subject leaders. The status of support staff needs to be upgraded in large schools and the leader of the special needs support group elevated to the status of subject coordinator or head of department. In this way support staff coordinators may be seen as equal members within the school team. This new structure would provide a career pathway for support teachers so that they are encouraged to remain within the system.

Conclusion

There are no easy or simple answers to the education of students with learning difficulties within the secondary education system. Since so many students (almost one in five) could be identified as being, at some point in time, within this category, the reality is all teachers have a responsibility to assist and manage these students. The role of support teachers is to work with the whole school to try to maximise their contact time with as many students with learning difficulties as possible, while recognizing that there may still be a need for alternate programs for a minority of these students. The aim is to have secondary students with learning difficulties able to achieve and reach their potential through an approach that incorporates greater flexibility and professional use of support staff. It is suggested that the support teachers use a variety of techniques in this process (e.g., monitoring, programming, advocacy and pastoral care) so that secondary students with learning difficulties have a more meaningful, motivating and successful education.

References

Ashman, A., & Elkins, J. (1990). Special education and special children. In A. Ashman & J. Elkins (Eds.), *Educating children with special needs* (pp. 1-31). Sydney: Prentice Hall.

Beazley, K. (Chairman) (1984). *Education in Western Australia.* Report of the Committee of Inquiry into Education in Western Australia. Perth, WA: Department of Education.

Board of Teacher Education Queensland. (1981). *Secondary schools and the world of work.* Brisbane: Author.

Brady, L. (1990). *Curriculum development* (3rd ed.). Sydney: Prentice Hall.

Cadman, A.G. (Chairman). (1976). *Learning difficulties in children and adults. Report of the House of Representatives Select Committee on Specific Learning Difficulties.* Canberra: Australian Government Publishing Service.

Chapman, J.W. (1988). Special education in the least restrictive environment: Mainstreaming or maindumping? *Australia and New Zealand Journal of Developmental Disabilities, 14*, 123-134.

Commonwealth Schools Commission. (1987). *In the national interest: Secondary education and youth policy in Australia*. Canberra: Australian Government Publishing Service.

Copeland, I. (1990). Support across the curriculum. *British Journal of Special Education, 17*, 9–12.

Galloway, D. (1989). Special educational needs and pastoral care. In A. Ramasut (Ed.), *Whole school approaches to special needs: A practical guide for secondary school teachers* (pp. 32-42). London: Falmer Press.

Gersten, R., & Woodward, J. (1990). Rethinking the regular education initiative: Focus on the classroom teacher. *Remedial and Special Education, 11*, 7-16.

Hartley, R. (1989). *The social costs of inadequate literacy: A report for international literacy year*. Canberra: Australian Government Publishing Service.

Hay, I. (1988). Remediation and mainstreaming. In. A. F. Ashman (Ed.), *Integration 25 years on* (Exceptional Child Monograph No. 1) (pp. 69-76) St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Hay, I. (1990, October). *Issues in the provision of services to Queensland secondary school students with an intellectual disability*. Paper presented at 26th National Conference for the Australian Society for the Study of Intellectual Disability, Adelaid, South Australia.

Hay, I. (in press). Strategies to assist lower secondary school students who have comprehension and recall problems. *Australian Journal of Remediation.*

Kloska, T. (1989). Institutional change—A whole school approach. In A. Ramasut (Ed.), *Whole school approaches to special needs: A practical guide for secondary school teachers*. (pp. 43-54). London: Falmer Press.

Maxwell, T.W., Marshall, A.R.A., Walton, J., & Baker, I. (1989). Secondary school alternative structures: Semester courses and vertical grouping in non-state schools in New South Wales. *Curriculum Perspectives. 9*(1), 1-15.

McMahon, M., & McCowan, C. (1990). The guidance tutoring approach to pastoral care—A Queensland update. In *Proceedings Queensland Guidance and Counselling Association Conference (Part 2), Rockhampton.*

Mercer, C.D., & Mercer, A.R. (1989). *Teaching students with learning problems* (3rd ed.). Columbus, OH: Merrill.

Middleton, M., Brennan, M., O'Neill, M., & Wootten, T. (1986). *Making the future: The role of secondary education in Australia*. Canberra: Government Schools Commission.

Mittler, P. (1989). Forward: Towards education for all. In D.J. Reid & D.Hodson (Eds.), *Special needs in ordinary schools: Science for all* (pp. i-xii). London: Cassell.

Murphy, J., & Hallinger, P. (1989). Equity as access to learning: curricula and instructional treatment differences. *Journal of Curriculum Studies, 21*, 129-149.

National Board of Employment, Education and Training. (1990). *Getting it right: Schools servicing disadvantaged communities. Commissioned Report 2.* Canberra: Australian Government Publishing Service.

O'Connor, P.R., & Clarke, V.A. (1990). Determinants of teacher stress. *Australian Journal of Education, 34*, 41-51.

Power, C. (1987). Individuals in our schools: New horizons in education. *Journal of World Education Fellowship, 76*, 13-23.

Queensland Department of Education, Guidance and Counselling Services. (1989). *Guidance Tutoring Years 8 and 9 programs*. Spring Hill, Brisbane: Division of Special Services, Department of Education.

Ribbins, P. (1989, December). Pastoral care: In praise of diversity? *Pastoral Care*, pp. 28-36.

Smith, G., &, Goldthorpe, R. (1988). Returning to the mainstream. *British Journal of Special Education, 15*, 143-145.

Thomson, S. (1987). Stress in staff working with mentally handicapped people. In R. Payne & J. Firth-Cozens (Eds.), *Stress in health professionals* (pp. 151-165). New York: John Wiley.

Viviani, N. (1990). *The review of tertiary entrance in Queensland*. Brisbane: Queensland Department of Education.

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CHAPTER 9

Integration of Townsville Special School Students at Townsville High School

BARRY HARKER

Townsville Special School

In mid 1985, the Principal of Townsville Special School approached the Townsville High School principal concerning the possibility of cooperative program development at each school. The idea was received favourably and the Senior Mistress at the high school assumed responsibility for liaison with the special school principal. These two individuals consulted widely within their respective schools and met frequently to identify areas in which joint programs could be developed.

Three areas of potential cooperation were identified. At the high school, a number of Year 8 students were experiencing difficulty. With minimal attainments in mathematics and reading, these students were unable to gain significant advantage from their school program. It was agreed that they could benefit from a one day a week placement at Townsville Special School where a program more in tune with their needs could be provided.

The second and third area for cooperative effort involved a number of adolescent students at the special school. These students were considered capable of benefitting socially from a placement in a secondary school, where exposure to a larger, more complex environment would provide opportunities for students to develop the social skills needed by adults in society. It was decided to attempt integration programs in the secondary school for them at an appropriate level in Year 8 or Year 11.

At Townsville High School, a resource teacher was delegated to identify Year 8 students who might benefit from a partial placement at the special school, where Participation and Equity Project funds were available to

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employ a temporary teacher to assist the Principal in identifying students who might benefit socially from a secondary school placement. Following the identification of these students, parents and students were consulted and a series of meeting were held.

These meetings created a deal of philosophical discussion as most parents were concerned more for the academic than the social development of their children. Their concern was that integration of their children at the high school would mean less support for their children in traditional academic areas. The Principal argued that education was not exhausted in academic achievement and that one of the roles of the school was to prepare students to live effectively in their society upon leaving school. As special school students had been given every opportunity to develop academic skills in a sheltered educational environment in pre-adolescent years, it was now important to develop commensurate social skills in a more open environment, as teenagers. Eventually, the wider view prevailed and parents gave their permission for the integration project to begin.

The first program commenced at Townsville High School in second semester, 1985. A group of 15- and 16-year-old students from the special school were integrated into the Year 11 Community Based Learning program. This program emphasised community service projects, manual arts and basic academic and social skills. Students needed to read at a 7 year old level, demonstrate basic arithmetical skill in addition, subtraction, multiplication and division, and have the social skills necessary to work cooperatively with others.

Additional 15 and 16 year old students from the special school entered this program in 1986. At the end of 1986, the Year 11 Community Based Learning program at the high school finished. The special school students who were being targeted for this program in 1987 were redirected to the Community Based Learning program at Pimlico High School.

During 1987, Townsville High School developed a two-year program, commencing at Year 11, which was similar to the previous Community Based Learning program. Two special school students were integrated into this program at the beginning of 1988 as the Pimlico High School Community Based Learning program finished at the end of 1987. Due to the lack of suitable candidates, no students have been integrated into Year 11 programs since 1988.

In semester one 1986, a number of special school students were integrated into Year 8 classes at Townsville High School, attending on the pastoral care day each week. The selection criteria for these students were the same as those used for entry to the Year 11 programs in 1985 and 1986. On the day that the special school students attended the high school, a number of high school Year 8 students attended the special school.

At the high school, an in-service program was provided for teachers of Year 8 students. Many of the teachers were concerned at the ability of the special school students to cope, due to some initial harassment. This problem settled over time and the students adapted to their new environment. All had difficulty with the program content but this was overcome to some extent by the support provided by the resource teacher.

During 1986, the Principal of the special school and the Senior Mistress of the high school maintained informal contact on a fortnightly basis. The Mistress reported regularly on the progress of the project. The guiding principle for administrative arrangements was that the integration project should involve as little special provision as possible. The Principal of the special school visited the Year 8 students in their classes occasionally, but generally attempted to keep a low profile in the monitoring process. Communication between teachers and administration was flexible and informal, yet designed to identify problems or emerging problems quickly. Where possible, at least two special school students were placed in the same class and occasionally this involved juggling numbers in Year 8 classes to allow this to occur.

The year 8 students from Townsville High School who attended the special school one day a week were provided with a program designed to relieve some of the pressure being experienced at high school. The programs included some classroom activities, manual arts and excursions. The advisory visiting teacher from the Special Education Vocational Outreach School was closely involved with this program. The program finished at the end of 1986 as a special needs unit was to be established at Townsville High School in 1987. At the beginning of that year, both schools experienced changes in principals though these changes did not bring significant modification to the project.

In 1987, special school students who had attended Townsville High School in 1986 were enrolled in full-time Year 8 programs at the high school. In semester two 1987, a group of special school students similarly were integrated into Year 8 programs one day a week in preparation for full-time placement in 1988. During semester two 1988, two students from the special school began the integration process in preparation for full-time attendance at high school in 1989. These students failed to adapt to the high school environment and this, in conjunction with a series of changes in key personnel, led to circumstances which resulted in the demise of the integration project as it was originally conceived.

The key personnel changes began in mid 1988 when the Senior Mistress took another position outside the school. In 1989, the Principal of Townsville Special School was on study leave and Townsville High School had a new Principal. The lack of suitable candidates for integration resulted in no special school students being enrolled at high school in 1989.

In 1990, a complete turnover of staff in the special needs unit at the high school, the loss of momentum in 1989 and a less accepting environment at the high school, resulting from changes to the administration team, led to the demise of the integration project as it had operated since its inception. Reorganization of special school programs and some parental resistance assisted in the demise of the original project. Future integration of

Townsville Special School students at Townsville High School will need to be negotiated afresh.

During the integration project, 22 special school students were integrated into full-time programs at the secondary level. Eleven students were integrated at the Year 11 level, and eleven students at the Year 8 level. Of the 22 students, 16 were male, which roughly represents the ratio of male to female students enrolled at the special school.

The integration of these more capable students has had a significant input upon the special school. The special school enrolment has fallen dramatically due to the integration of these students and the retention of many students with mild intellectual handicaps in primary school. The special school enrolment is now one third of its peak enrolment in the 1970s.

Evaluation

From its inception, this project focussed on the development of social skills and self-esteem. In recognition of the difficulties of quantifying progress in these domains, formal testing and monitoring was minimal. Therefore, evaluation of the project relied heavily upon observation and value judgement. This approach to evaluation recognises the point made by Jenkinson (1987) that many questions raised in the integration versus segregation debate are more philosophical than empirical, depending on value judgements rather than on research for their answers.

To 1988, the consensus of administrators involved in this integration project was that it had been successful. Twenty-four students were selected for integration and 22 students entered full-time programs. All 22 students have adapted to, and survived in the secondary school environment. There have been few problems during the project with disruptive behaviour by integrated students. In the future, it will be of interest to see how many of these students have been able to find and maintain jobs.

Parents have generally been positive about the effects of the project on their children. The students, on the whole, have also exhibited positive attitudes to placement in the secondary school environment. During the project, it has become clear that there are many students arriving at high school from primary school with fewer skills than those exhibited by the special school students. This anecdotal evidence seems to indicate that the individual programming at special school does confer some benefits to students with special needs.

Mere placement of a special school student in a secondary school environment does not guarantee effective integration. The environment needs to be warm and receptive and adequate resources must be available to the school. At the high school, the Special Needs Unit monitored the academic program of the integrated students and provided developed curriculum units in mathematics, English and either history or geography for these students. The pastoral care system in the school ensured that all students became a part of a warm, supportive, stable group. Much of the success of the integration project can be attributed to the combined effect of support in the academic and social domains.

The pastoral care system at Townsville High School uses vertical groupings of 18 to 20 students from Year 8 to Year 12. Students remain in their groups throughout their secondary schooling, group teachers are changed as little as possible and groups are operated to provide opportunities for all students to receive support and develop personal competencies. It is an excellent system and is recommended to any secondary school contemplating the integration of special school students.

Discussion

Special schools came into existence because regular schools were unable or unwilling to make special provision for children with learning difficulties. We must be careful that, in adopting a policy to integrate students with special needs into regular schools, we do not merely reproduce in the regular schools the same conditions which led to the development of special schools. Adequate resources must be provided and regular schools must create receptive environments for students with special needs.

The integration of special school students at Townsville High School demonstrates that integration projects do not need to be exhausting affairs, but can be based successfully on mutual commitment, flexible, informal administrative procedures and need not attempt to be everything to everybody.

Townsville High School is more receptive than most secondary school environment to integration because of its pastoral care arrangements and the Special Needs Unit. The initial success of the project could therefore be attributed not only to the flexible administrative arrangements and a strong, shared focus on self-esteem building as the purpose of the project, but also to the internal arrangements of the school which attempt to make it a warm environment for all of its students.

This means that if integration projects of the type here described are to succeed, there may need to be a fundamental re-evaluation of mainstream schools in order to create an appropriate environment for the integration of students with special needs. This promises to confer advantages, directly or indirectly, upon all students in a mainstream school. There are certainly advantages for students in mainstream schools who may be experiencing difficulties.

Reference

Jenkinson, J.C. (1987). School and disability: Research and practice in integration. *Australian Education Review, 26*, 9.

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CHAPTER 10

Teaching in Integrated Settings: A Focus on Professional Development

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Since the passing of Public law 94-142 in the United States in 1975, much had been written about teaching exceptional children in integrated settings. A re-occurring theme in this literature is the perceived mismatch between rhetoric and reality. Although it is clear that successful integration has occurred in school systems (e.g., Ballard, 1987; Biklen, 1985; Forest, 1987), it is equally clear that, in many instances, philosophical commitment has not been met by practical outcomes (e.g., Gannon, 1988; Gregory, Shanahan, & Walberg, 1985; Harvey, 1985).

In Australia one major national review has been undertaken to investigate integration policies and practices (Gow & Snow, 1986). This review was commissioned by the Commonwealth Schools Commission which, since the early 1970s, has supported attempts throughout Australia to integrate students with special needs into regular education settings. As an outcome of this review, Gow, Balla, Hall, Konza and Snow (1986), identified thirteen factors they considered vital to effective integration. They argue that these areas demand further attention.

This paper deals with one of these identified factors; the area of staffing. More specifically, it is concerned with (a) reporting the literature on teachers'

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attitudes and perceived competencies associated with teaching exceptional students in integrated settings; (b) advocating a particular conceptualisation of professional development for teachers; and (c) presenting basic requisites needed to facilitate effective professional development.

Teachers' Attitudes and Competencies

Attitudes and perceptions as psychological entities are functionally related; attitudes being greatly influenced by perceptions and vice versa. Much of the research data on integration involve teachers' perceptions of, or attitudes towards, the various philosophical and practical aspects underpinning such initiatives.

These data, which are mainly subjective, represent extremely important information for two reasons. First, perceptions are a teacher's interpretation or construction of reality, and, as such, provide the basis for action. Over time, continued changes in perception result in the reconstruction of a teacher's reality and so form the basis of continued action. Thus, a teacher's perception of an innovation, such as educational integration, has a great bearing upon the success of that innovation. Second, it follows that a teacher's perception of such an innovation and its implementation greatly influences his/her attitude toward it. If such attitudes are negative, the probability of a successful implementation is greatly reduced. Likewise, positive perceptions enhance the likelihood of successful implementation.

That positive teacher attitude is a necessary prerequisite to successful integration has been well-documented (e.g., Brabin, 1985; Espiner, Wilton, & Glynn, 1985; Horne, 1979; Phipps, 1984; Reynolds & Volkmar, 1984; Sesow & Adams, 1982). However, ever since the integration movement. started in the 1970s, there has been evidence to suggest that a large number of teachers have reported negative attitudes about, and minimal commitment to the idea of integration (Patching, 1988). In addition, writers in this area (e.g., Hesse, 1977; Keogh & Levitt, 1976; McGinty & Keogh, 1975) suggest that regular teachers felt they had neither the knowledge about exceptional children nor the necessary competencies to cope with such children in regular classroom environments. The fact is that most regular teachers are not prepared for this role. Keogh and Levitt (1976) seemed to reflect the current state of affairs when they contended that, although legislators and state or district administrators were enthusiastic advocates and principals seem mainly positive, regular classroom teachers were frequently ambivalent towards integration.

Several reports in the literature during the 1970s attested to the benefits of inservice education with respect to implementing integration. Keogh and Levitt (1976) document outcomes of successful inservice education programs in the state of California, while Harasymiw and Horne (1977) present research results showing modification of both teacher opinion towards integration, and feelings as to the degree of difficulty of managing the handicapped in regular classrooms as a result of similar programs.

A decade later, American writers were proclaiming a similar need. Leyser and Abrams (1986) maintain there is still a need for additional training for teachers to cater for integrated handicapped children. Fradd et al. (1987) reported that all participating teachers in their study Indicated they felt inadequately prepared to meet the educational needs of handicapped students. In general these claims concur with the conclusions reported by Gow et al. (1986).

Three recent Australian studies mirror the American findings. Clark (1987) studied a group of Queensland elementary teachers' philosophical and practical attitudes towards integration. He found that teachers displayed a pattern of positive attitudes and commitment to the philosophy of integration (reflecting similar findings by Mark, 1980) but that the same teachers were negative about their practical preparedness to accommodate a child with special needs in a regular classroom.

Quinn, Sultmann and Elkins (1988), in a statewide survey of Queensland Catholic schools, found that significant proportions of principals (78.1%) and teachers (77.6%) indicated positive attitudes to the enrolment and education of disabled children in regular schools; but stressed the prerequisite need for the provision of material resources, professional staff development, and specialist support services.

Parmenter and Nash (1987) undertook an investigation into the attitudes of teachers and parents in the Australian Capital Territory toward the integration of children with a moderate intellectual handicap. They found that teacher attitude was related to quality of interaction with special children, the more positive the interaction, the more positive the attitude. One of the earmarked concerns stated in the study was the lack of specialist training of regular teachers and their subsequent lack of knowledge of the needs of handicapped children. Data from a recent British study (Mepsted, 1988) support these findings.

In summary, three main points can be extracted from the research cited in this section. These are as follows:

1. Teachers' attitudes towards integration are mixed.
2. In general, teachers feel they lack the needed competencies for teaching special children in integrated settings.
3. There appears to be a definite need for staff development for teachers to function effectively in integrated settings.

A Concept of Professional Development

The essence of this section is to present some basic theoretical underpinnings that the authors believe are essential to effective professional development. By "effective" it is meant that, as a result of professional development, regular classroom teachers enhance their instructional effectiveness so that classroom outcomes (both process and content) match aims and intentions with respect to teaching, in this case, in integrated settings. In order to focus on the nature of professional development, the section examines: (a) the ideas of teachers as objects and teachers as subjects (Miller, 1980); (b) differences between inservice education and professional development (Stafford & Boyle, 1990); (c) the notion of teacher empowerment (Smyth, 1985); and (d) the development of pedagogical intelligence (Rubin, 1989).

Teacher as object/Teacher as subject approaches

Traditionally, Australian inservice education provisions for teachers have been provided via a "top down" approach. That is, most programs have been established and administered at a system's levels, especially when it is considered necessary to implement an educational change such as educating exceptional children in integrated settings. This inservice approach enables effective resource management, but one must question whether it results in the development of effective pedagogical practices and professional autonomy.

According to Dempster (1989) current thinking on improving teaching has shifted away from programs imposed on teachers by others (innovation focussed) to those enacted by teachers themselves (action focussed); away from the administratively popular inservice education towards personally-oriented professional development approaches.

Miller (1980) had previously highlighted the issue by analysing the ways in which the improvement of teaching was discussed in the literature and treated in practice. She drew a distinction between the ideas of teachers as objects and teachers as subjects, and suggested that such a distinction provided a framework for thinking about improve ing teaching effectiveness.

The Teacher as Object Approach: An assumption of minimum competency. Central to the teacher as object approach is the belief that the teaching process can be sub-divided into small identifiable sections and that acceptable levels of performance in each subsection can then be predetermined. Such a concept accepts that teachers adjudged to be below minimum competency in particular sub-sections subsequently become the targets of special programs. These programs are sponsored by centralised authorities and are disseminated generally without serious thought as to the particular audience or their specific needs. Further, the programs are assumed to bring about improvement per medium of experts who offer planned experiences in a variety of environments usually separated from specific classroom situations. From the point of view of initiating, planning and running these programs, this concept assumes teachers to be passive recipients of structured programs planned and offered by others outside the teachers' frame of reference. Teachers become nothing more than the objects of others' intentions and actions. They certainly are not in control of their own development and growth. Such an overall program, and the environment likely to be generated by it, are not conducive to the development of teacher autonomy.

The Teacher as Subject Approach: An alternative to teacher as object. This occurs when teachers themselves become the initiators of their own development and growth. They become the subjects rather than the objects of programs. The assumptions surrounding becoming active in the process become the major departures from the teachers as objects approach. With the teacher as subject approach there is a sense of ownership; of the programs belonging to the participants. The problems, which are the focus of programs, are relevant to, and are perceived to deal with, issues that are significant to individual teachers. Whereas the teacher as object orientation emphasises maintaining minimum acceptable standards, the teacher as subject approach is focussed on continually raising the individual's standards. Miller argues that this latter approach enables the process of "mutual adaptation," which assumes that "teachers are subjects who are engaged with other subjects in activities of assessment, trial, modification, retrial, implementation and evaluation around issues of materials, organisation, and instruction" (1980, p. 160).

Differentiating inservice education and professional development

Stafford and Boyle (1990) maintain that the conceptual distinctions between teacher as object and teacher as subject approaches illustrate the differences that are apparent between inservice education and professional development. Those programs aimed at effecting change in teaching by an inservice education model are based on the teacher as object concept of improvement. Such approaches typically assume some degree of teacher deficiency and subsequently recommend centrally organised and administered programs in skills, content or methods to overcome the deficiency. Again, inservice education models, by focussing on these skills, content, and methods, bring about a degree of conformity among teachers. In effect they reduce teachers' options and alternatives. Consequently, there is a supportable argument that inservice programs detract from, rather than add to the autonomous development of teachers. Such an argument is based on the fact that the process of planning and implementing inservice education programs separate teachers from control of their own professional situation—a phenomenon commonly identified as a significant cause of alienation among the members of any profession.

Professional development practice is based on the teacher as subject approach. It assumes that individual teachers accept responsibility for their own development. It does not assume a deficiency in the person but rather that, in order to overcome the journey to obsolescence about which Rubin (1975) spoke, there is a need for individuals to equip themselves to effect change. The assumptions are for them to increase, not decrease, their range of teaching alternatives, to accept responsibility for their own professional improvement rather than to rely on others, and to increase continually the scope and quality of what they do rather than aim at achieving minimum acceptable competency in a range of skills identified by others. In other words, the professional development approach assumes that in regards to their teaching, teachers become reflective, adaptive professionals.

Traditionally, programs aimed at improving teaching usually have been based on inservice teacher as object approaches. The use of this type of approach, together with the messages it sends, certainly will have contributed to many of the negative reactions teachers display towards the very idea of questioning their teaching competence.

Teacher empowerment, pedagogical intelligence and professional development

Teacher empowerment. Professional development based on the concept of teacher as subject places the control for action to improve the quality of teaching directly with the individual teacher. This is akin to what Smyth (1985) refers to as empowerment, a concept which

> amounts to enabling teachers to develop ways of framing their own problems, dialoguing and working individually and collectively on defining and uncovering other possibilities. while working towards obtaining the resources necessary to effect change. This is quite different from endeavours where teachers have been required to lift their game by means of inspection and evaluation. (p. 180)

Empowerment is the focus of teacher as subject approach. It does not stress the need for "reskilling," nor does it reinforce existing feelings of "powerlessness, docility and subservience" (Smyth 1985, p. 181)—features that result from current inservice education programs reflecting teacher as object values. With teacher empowerment, initiatives exist with individual teachers, the issues are individually relevant, the emphasis is on effecting change rather than being restricted to improvement of existing practices, and standards are not arbitrarily imposed.

Smyth's message in this is clear enough. Rather than strategies that treat teachers in demeaning ways as passive consumers of somebody else's knowledge, what is needed are forms of professional development that actively endorse what is already known about how teachers hold and use knowledge, and about how they actually learn.

Pedagogical intelligence. Louis Rubin (1989) has strongly defended the concept of 'pedagogical intelligence'. He insists that it is not what expert teachers do, but rather the ways in which they decide what to do that makes the difference in instructional effectiveness. The latter is a function of pedagogical intelligence. The following statements summarise his description of the concept:

- It is the ability to facilitate significant learning with maximal efficiency.
- It consists of a particular amalgam of aptitudes, stemming from other forms of intelligence which can be cultivated and enlarged.
- It necessitates not only a consummate understanding of the classroom milieu but also a prescience that evolves over time.
- It develops through confronting instructional dilemmas and employing appropriate solutions which henceforth become instructive. It is, therefore, acquired primarily in the work place. (Rubin 1989, pp. 32–33)

Rubin maintains that pedagogical intelligence can be enhanced through professional development. Among other means, he stresses the importance of self experimentation, collaboration, and the employment of "various kinds of stimuli for encouraging reflection, situational analysis and the cumulative storing of insight" (Rubin, 1984, p. 33). These features were almost identically mirrored by Clark and Peterson (1986) when they stated

> The maturing professional teacher is one who has taken some steps towards making explicit his or her implicit theories and beliefs about learners, curriculum, subject matter, and the teacher's role ... has developed a style of planning for instruction that includes several interrelated types of planning and that has become more streamline and automatic with experience ... attends to and intently processes academic and non-academic sociocognitive events and cues; ... [are developing] the confidence to depart from a planned course of action when they judge that to be appropriate; ... reflect on and analyze the apparent effects of their own teaching and apply the results of these reflections to their future plans and actions. In short they have become researchers on their own teaching effectiveness. (pp. 292–293)

Furthermore, the importance of self and collaborative reflection on teaching practice as a major component of professional development is also stressed by Smith and Schwartz (1988), Brandt (1986), and Stafford and Boyle (1990). In sum, there is strong advocacy for the instigation of professional development programs that facilitate the empowerment of teachers to enhance pedagogical intelligence—a position supported by the authors.

Requisites to the Facilitation of Effective Professional Development

To allow the conceptualising of pedagogical intelligence to become reality, certain requisites are necessary. There are obviously many, and they range in their degree of saliency in facilitating the process. The authors have chosen those requisites believed to be more important, especially in initiating the type of professional development that has been detailed throughout this paper.

The recommended requisites are:

1. Extinguish old habits

What teachers are is a function of conditioning. This is a result of associations teachers have made with, for example, their own school's policies, peers, training institutions, activities, and institutions. As a result, many of the attributes of teachers (e.g., attitudes, teaching routines) are habitual. Three that need to change are listed below.

1. Current expectations about the provision of traditional "top down" inservice programs. There is a need break the notion of "They need to provide ... " so often believed by teachers. This is not a statement of blame targeted at teachers. Rather, the system has conditioned them to think in this manner.

2. In the context of integration, there still appears to be the dichotomy of regular versus special children in classrooms. Accompanying this is the notion that different teaching techniques are needed for each group. There is a need for a change in these perceptions, with teachers being encouraged to focus more on generically effective teaching per se, rather than feeling the need to employ special methods for special groups.

3. Traditionally, special educators concentrate on the special education literature, while regular educators concentrate on the regular education literature. Again, in the context of integration, there is a need to break these habits and encourage a widening of the literature base for all teachers.

2. Leadership

Smyth (1985) stressed the importance of leadership in the quest for teacher empowerment. If staff development is to be teacher initiated and controlled, the role of leadership at both the school and system level, needs to be one of facilitation. This would include being non-coercive and non-judgemental of existing teaching practices, which according to Smyth, does not exclude the adoption of an enquiring and critical attitude. He also advocates the focussing on issues of immediacy and practicality for teachers, since he maintains that theories emerge from practice.

Because learning is ultimately an individual responsibility, Wildman and Niles (1987) believe that school leaders should promote self-sufficiency in teachers, and professional development enterprises should reinforce the idea of independent teacher learning. They also stress the importance of the leadership role in stimulating teacher exploration and self-research in an effort to reduce teacher anxiety and/or uncertainty, rather than directly supplying an answer.

It is obvious that the role of leader is extremely important in the professional development enterprise. As well as being an on-site facilitator, leaders are crucial in the supply of, for example, critical personnel, resources, and access to a range of sources of expertise.

3. Recognising the importance of reflection

Many writers have stressed the importance of reflection on practice in the improvement of teaching (e.g., Clark & Peterson, 1986; Brandt, 1986; Rubin, 1989; Smith & Schwartz, 1988; Stafford & Boyle, 1990). Reflection involves the processes of discovering problems, inventing and implementing solutions, and evaluating their effectiveness. Reflection is one of the major components that distinguishes between the traditional "top down" inservice education perspective and the professional development approach with its emphasis on teacher empowerment. By way of example, Smith and Schwartz (1988) outline an intervention workshop procedure designed at having teachers improve their teaching by reflecting on practice.

Participants were requested to (a) identify a problematic situation of some importance; (b) generate data about their actions in the situation and their interpretations of those actions; (c) build a diagnosis of the problem which makes the underlying reasoning explicit and organise it into an action map; (d) develop, refine, and expand the initial diagnosis; (e) move from the diagnosis to the invention and production of new actions to solve the problem; (f) examine these new actions and surface any inconsistencies with values and belief; (g) consider alternate ways of thinking about, and acting in, problematic situations in order to promote more effective problem solving and learning.

The authors believe that reflective practice procedures such as those described above could be adapted and used in many aspects of professional development with respect to improving teaching effectiveness in integrated settings.

4. Collegial interaction

As implied in much of this paper, collegial interaction is a fundamentally important element in the professional development picture. Several writers have stressed the importance of collaboration in improving teaching. Smith and Schwartz (1988) view it as essential in their model of Reflective Practice Intervention. Smyth (1985) argues the importance of what he terms "responsive inservice education" and often termed clinical supervision in the literature. The centre piece of this form of professional development is conferencing (i.e., collegial discussions) between a teacher and a trusted colleague. It occurs both before and after a lesson is taught. Wildman and Niles (1987) cite research evidence attesting to the importance of collaboration based on a range of outcome variables, but warn that freedom to direct one's own learning is a vital aspect of it. "Collegial groups must be flexible in their composition and purposes. They must form and disintegrate based on the needs of individual teachers ... and it is the teachers who must decide on the specifics of their collaboration" (Wildman & Niles, 1987, p. 8).

Conclusion

In this paper the authors have sought to highlight teachers' attitudes towards the teaching of exceptional children in integrated settings; the powerful advocacy that exists for professional development programs that reflect the notions of teacher empowerment and pedagogical intelligence, and some requisites for the facilitation of such programs.

In a real sense these comments are not new. They have been said before in different places by different authors. What is so disappointing is that the implications to be drawn from such comments are taking so long to effect what is happening to teachers and children in classrooms. There is a need for those who are responsible for the introduction of innovations such as teaching exceptional children in integrated settings to recognise the impact of these innovations. Teachers are well-justified in asking how long it will be before policy makers recognise the need to involve those who implement innovations in the earliest stages of innovations, including the identification of areas of concern and the means to overcome these concerns. When responsible people fail to do this they create an environment in which practitioners are not motivated to identify significant problems, to develop appropriate options and techniques continuously, or to be critical of their own professional performance in overcoming the problems. Rather than nurturing the reflective professionals, Clark and Peterson (1986) suggested that a failure to recognise the legitimacy of teachers' stakeholding in what happens in the classrooms will inevitably lead to teacher alienation and disenchantment.

References

Ballard, K.D. (1987). Mainstreaming. In A.B. Smith (Ed.), *Understanding Children's development* (2nd ed., pp. 232–252. Wellington: Allen & Unwin.

Biklen, D. (1985). *Achieving the complete school: Strategies for mainstreaming.* New York Teachers College Press.

Brabin, P. (1985). Integrating an intellectually disabled child in the primary school. *Interview, 15*, 14-21.

Brandt, R. (1986). On the expert teacher A conversation with David Berliner. *Educational Leadership, 44*(2), 4–9.

Clark, C.M., & Peterson, P.L. (1986). Teachers' thought processes. In M.C. Wittrock (Ed.), Handbook of research on teaching (3rd ed., pp. 255–296). New York: Macmillan.

Clark, S. (1987). *Elementary teachers' attitude toward mainstreaming, both philosophically and practically.* Unpublished masters thesis, James Cook University of North Queensland, Townsville.

Dempster, N. (1989). Approaches to inservice education: Past and present. *Unicorn, 15*, 92-95.

Espiner, D., Wilton, K., & Glynn, T. (1985). Social interaction and acceptance of mildly retarded children in a mainstream special education setting. *Australian Journal of Special Education, 9*, 8–15.

Forest, M. (1987). More education/integration. Downsview, Ontario: The G. Allan Roeher Institute.

Fradd, S., Kramer, L., Marquez-Chisholm, I., Morsink, C., Algozzine, K., & Yarbrough, J. (1987). Teacher competencies in the mainstreaming process. *Journal of Classroom Interaction, 22*, 31–40.

Gannon, P.M. (1988). The integration of students with disabilities in Australian regular schools: We have a long, long way to go. In A.F. Ashman (Ed), *Integration 25 years on* (The Exceptional Child Monograph No. 1, pp. 41-46). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Gow, L., Balla, J., Hall, J., Konza, E., & Snow, D. (1986). Towards effective integration in Australia. *Australian Journal of Special Education, 10*, 14-20.

Gow, L., & Snow, D. (1986). *Report to the Commonwealth Schools Commission on integration in Australia.* Wollongong, NSW: University of Wollongong.

Gregory, J.F., Shanahan, T., & Walberg, H. (1985). Learning disabled 10th graders in mainstreamed settings: A descriptive analysis. *Remedial and Special Education, 6*, 25–34.

Harasymiw, S.J., & Horne, M.D. (1977). Teacher attitude towards handicapped children and regular class integration. *Journal of Special Education, 10*, 393–400.

Harvey, D.H. (1985). Mainstreaming: Teachers' attitudes when they have no choice about the matter. *The Exceptional Child, 32*, 163–173.

Hesse, R.M. (1977). *A procedure for determining needs for inservice training of classroom teachers in a mainstreaming approach to the education of the mildly handicapped.* Unpublished doctoral dissertation, University of Oregon.

Horne, M.D. (1.979). Attitudes and mainstreaming: A literature review for school psychologists. *Psychology in the Schools, 16,* 61–67.

Keogh, B.K., & Levitt, M.L. (1976). Special education in the mainstream: A confrontation of limitations. *Focus on Exceptional Children, 8,* 1–11.

Leyser, Y., & Abrams, P.D. (1986). Perceived training needs of regular and special education student teachers in the area of mainstreaming. *The Exceptional Child, 33,* 173–180.

Mark, F.D. (1980, April). *The attitudes of elementary teachers toward the mainstreaming of educable mentally retarded students in Northwestern Ohio School Districts: A summary of the study.* Paper presented at the Annual International Convention of The Council for Exceptional Children, Philadelphia.

McGinty, A.M., & Keogh, B.K. (1975). *Needs assessment for inservice training: A first step for mainstreaming exceptional children into regular education* (Technical Report). Los Angeles: University of California.

Mepsted, J. (1988). Teachers' attitudes. *Special Children, 17,* 14–15.

Miller, L. (1980). BTES: Implications for staff development. In C. Denham & A. Lieberman (Eds.), *Time to learn* (pp. 159–171). California: US Department of Education and National Institute of Education.

Parmenter, T.R., & Nash, R. (1987). Attitudes of teachers and parents in the Australian Capital Territory (ACT) towards the integration of moderately intellectually handicapped children. *Australian Journal of Special Education, 11,* 26–31.

Patching, W.G. (1988). Mainscreaming: The teachers' cry for inservice education. In A.F. Ashman (Ed), *Integration 25 years on* (The Exceptional Child Monograph No. 1. pp. 179-189). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Phipps, P.M. (1984). Regular classroom teachers look at LD classrooms. *Academic Therapy, 19,* 599–605.

Quinn, M.G., Sultmann, W.F., &. Elkins, J. (1988). Exceptional students in Queensland Catholic Schools: Prevalence, priorities and future directions. *Australian Journal of Special Education, 12,* 10–20.

Reynolds, C.J., & Volkmar, J.N. (1984). Mainstreaming the special educator. *Academic Therapy, 19,* 585–581.

Rubin, L. (1975). The case for staff development. In T.J. Sergiovanni (Ed.), *Professional supervision for professional teachers* (p. 34). Washington, DC: Association for Supervision and Curriculum Development.

Rubin, L. (1989). The thinking teacher: Cultivating pedagogical intelligence. *Journal of Teacher Education, November–December,* 31–34.

Sesow, D.C., & Adams, G.L. (1982). Future teachers' attitudes towards mainstreaming. *Education, 102,* 280–283.

Smith, K., & Schwartz, F. (1988). Improving teaching by reflecting on practice. In J. Kurliss, L. Hilsen, S. Kahn, M.D. Sorcinelli & R. Tiberius (Eds.), *To improve the academy* (Vol. 7, pp. 63–84). Stillwater, OK: New Forums Press.

Smyth, J. (1985). An educative and empowering notion of leadership. *Educational Management and Administration, 13,* 179–186.

Stafford, K., & Boyle, P. (1990, June). *Serving the 'reflective professional' and 'the survivor': Towards a model for the development of teaching in higher education.* Paper presented at the Tenth Annual Conference on Teaching and Learning in Higher Education, Centre for University Teaching and Learning, McGill University, Montreal, Quebec.

Wildman, T.M., & Niles, J.A. (1987). Essentials of professional growth. *Educational Leadership, February*, 4–10.

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CHAPTER 11

Integration of Young Children into Regular Early Childhood Settings: Management of Staff and Parents

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Access to educational and related support services at the earliest possible time has been recognised as important for young children with disabilities (Bricker, 1986). The reasons for such services in early childhood settings have been identified as an opportunity to deal with problems at a stage when they may be least clouded by other issues of development; before the disability is compounded by cumulative deficiencies; and reducing the opportunity for the child to develop inappropriate social behaviours (Lewis, 1990). It can also provide support for parents at a time when they may not have fully developed their own coping skills.

In an earlier paper, Baxter (1988) concentrated on the program and impact of intervention for the child with some reference to the reaction of staff and parents. Since then we have had the opportunity to contemplate the wider issues of support and management of parents and staff. Both are seen as crucial to successful intervention programs. In this paper we discuss some of the areas and extent of such management, highlighted by the previously documented case examples. They will show that integration involves more than just classroom programming for the child with disabilities.

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Early Childhood Settings

The integration of children with a variety of disabilities is not uncommon in early childhood settings. Building regulations for preschools and child care centres usually provide environments that emphasise physical safety and are relatively easy to supervise. The staff often include registered nurses in addition to child care workers and teachers who have been trained to work with very young children who are not expected to be self-sufficient. In many cases successful integration is equated with the staff's time and ability to cope with the additional workload that children with disabilities are perceived to generate. The suitability of the building may also be considered which leads to a point where integration may be " ... confused with physical location and often discuss in terms of specific situations rather than in terms of the whole life style of children" (Florek, 1986, p. 52).

The Parent

A child with a disability can evoke a form of the grieving process in parents and others close to the child. Although this may eventually be resolved to varying degrees by the adults, the feelings of grief may intensify periodically. This occurs at various stages of the child's development: being stimulated when disabilities are emphasised (Winkler, Waslow, & Hatfield, 1981). Such grief may not always manifest itself in open distress, but the sensitivity of staff to this is essential if an integration program is to succeed.

The degree of parental acceptance of the child's handicap plays an important part in the working relationship with staff. Apart from the obvious extremes of distress or denial the parent attitude may be categorised into one of five general positions:

- those who have accepted the disability and can effectively cope with the child and their long-term needs;
- those who are trying to accept the child's disability and are attempting to cope with their new situation;
- those who cannot really accept their child's disability and believe that he or she will eventually "get better";
- those who believe their child will never be able to function independently and resign themselves to care for their child as long as they live; and
- those who cannot cope and delegate the care of their child to others (Crickmore, 1991).

The Staff

The staff must also recognize the possibility of encountering negative emotions about integration of disabled children within themselves. These may be directed towards themselves, other staff members, and/or the child's parents. White and Phair (1986) have identified eleven such feelings including anger, guilt, fear, defensiveness, fatalism and exhaustion. It is important to realize that such feelings, while not particularly productive, are relatively normal. Once recognized, they can be countered. Staff should be made to feel that it is better to express the feelings they hold rather than keep them hidden. This is where colleague support and staff discussions are essential. It may also be appropriate to involve outside professionals and the parents in some of these sessions. Only when we feel comfortable with ourselves and the situation can we make the appropriate decisions.

Some aspects of the importance of recognizing and coping with aspects of staff and parent feelings are demonstrated in the following case examples.

Case Example 1

Jason was enrolled in child care at the chronological age of 3 years and 6 months. He was not walking or talking and from information provided by his mother, at the time of enrolment, he had been assessed as functioning at the level of a 2-year-old. Our reaction, which was probably typical of many unfamiliar with the wider concepts of integration, was to concern ourselves with "fitting" Jason into the setting. We wanted to make sure that we could cope without other children in the group being neglected (Bricker, 1978). After some consideration of child related factors, Jason was placed in a small group with 2-year-old children.

We were cognisant of all the usual social and emotional factors and took into account that Jason was an only child of a single mother and had limited social contacts with children of his own age. We were delighted, therefore, to find that he separated from his mother without trauma and accepted the new environment with both curiosity and good humour. This positive social and emotional reaction enabled us to concentrate on adapting the room and program to his disability without disadvantaging the other children in the group.

Naturally we wanted to help Jason's development. A considerable amount of planning time was devoted to staff discussions about ways to extend his abilities without pushing too hard and without over attending to him at the expense of other children in the group. In this regard no specific individual program was introduced for him that would set him apart from the group, although concessions were made in relation to some physical activities.

In the following months Jason started to walk, albeit a little unsteady, but he was still not talking. His social skills developed and he was moved from the 2-year-old group to a room where the children were nearer his chronological age. He accepted this well and we were feeling very positive about his progress when, without warning, his mother withdrew him from the centre. She explained that she had found a place in a special school which, she said, would be better for him.

In a situation like this, it is easy to feel defensive about loosing a child. We had made a lot of effort to accommodate Jason's needs and had seen his progress in many areas of development as small but very positive signs of successful integration. However, on reflection, it became quite obvious that we had made some basic errors: we had insufficient knowledge about the concept or complexities of integration as it related to Jason's mother, and our preconceived attitudes had turned his disability into a great handicap than she perceived it to be. She believed her son could make faster progress than he had because we had set goals for a lower standard of achievement. She may well have been right, but had not felt sufficiently comfortable about discussing this with the staff and resolved to move him away.

While the level of communication with her had been within a normal range for the centre's parents as a whole it had not met her needs which (we had not realized at the time) were greater than for other parents. From experience we knew that many parents feel guilt for placing their children in care and often resented enthusiastic staff accounts of the child's progress in their absence. We had assumed that she would react in a similar fashion and so we attempted to integrate her by not over emphasising direct contact about Jason's program and progress. Instead, we responded whenever approached but, in the main, left the initiative with her. To this day we think our approach to planning for Jason within the early childhood environment was correct. We had simply misread his mother's signals and failed to react appropriately.

The degree of acceptance is likely to influence the parent's attitude towards care and education programs. Sometimes it is necessary to convince a parent that higher skills can be achieved. Conversely, it may be a matter of providing the opportunity for a parent to advance a program which staff have prepared. Even when distressed, a parent with considerably more knowledge of the child may have more realistic expectation and goals than relatively inexperienced early childhood staff. At the very least these views should be included in programming decisions.

Actively encouraging parent involvement in some areas of decision-making can lead to more successful integration of the child although much may depend on staff attitude to varying levels of parent input. There is a fine line between positive contributions and interference. Crossing that line can generate defensiveness in some staff (White & Phair, 1986).

Nevertheless, involvement certainly has the potential to widen the parent's perception of our work in early childhood and, with appropriate trust building, allows more sharing of information and a closer working relationship between all adults involved. This may be particularly beneficial to the centre as a whole.

We like to think that we have learned something from the experience. Certainly, since Jason, we enrolled a number of other children with disabilities and recognized the broader implications of our work. We made use of this in relation to Matthew although he did much to further our education.

Case Example 2

When we enrolled Matthew, we were much more aware of the role we were expected to play. The only child of a young single mother, he was 2 years 9 months when he started at the centre and had little language development.

His appearance was markedly different from the other children in the group. Both feet were clubbed and his arms and legs appeared shorter in relation to his body. His mother told us that he had undergone preliminary extension surgery to correct Diastrophic Dysplasia. With the aid of thigh-to-toe prosthesis on both legs, he was reasonable mobile. She appeared accepting of his condition and the prognosis for the limitations on his future lifestyle. To this extent she had determined to make the best of it for them both by enrolling herself at University and placing him with us at the University Long Day Care Centre.

He settled into the routine of the group quite well and displayed some of the usual social skills expected at his age. The other children were fascinated by Matthew's prosthesis, particularly when they were removed for rest time. There were always willing and curious young helpers to assist putting them back on him when he awoke. This actually provided excellent opportunities for promoting interaction between Matthew and the other children.

Direct teaching with the support of specific peer models has been an effective and economical procedure. If the intention is to utilise peers to reinforce prosocial behaviours, then small groups of three or four children are suggested for the "structured" sessions. The members of this sized group can be selected to support your goal (Charlesworth & Hartup, 1967). Researchers have reported than more imitation takes place if the models are the same sex and are perceived as older than the target child. The imitation will also be more effective if models are seen to be rewarded for appropriate behaviour. Similarly, imitation of inappropriate behaviour can be decreased if models are seen to be penalised (Hartup, 1978)

Working with a young child with such obvious physical disabilities, delayed development in speech and possibly other areas, also aroused emotions in some staff. There was sadness about the circumstances of the boy brought about by no fault of his own; degrees of overprotection; and even anger directed at a perceived lack of attention to the child. These had to be discussed, accepted, and minimized as barriers to positive action for Matthew while in the program. Once settled into the room, however, his behaviour then gave rise to different emotions amongst staff and other parents.

Although his previous play experiences with nieces and nephews may have helped him settle in the centre it did not equip him with any tolerance for sharing. Whether his previous play experiences had been negative in this regard was not known but his sense of ownership of toys and equipment was very strong. Added to this was his lack of mobility which did not permit him to react at any great speed to the theft of his toys by other children in the group, and his lack of language prevented any meaningful verbal response. Therefore, he developed his own counter-insurgency skills: a disfiguring combination of teeth and nails.

Working with the disabled child's parent is one thing. Trying to explain the bites and gouges to the parent of a damaged, previously nondisabled, child is a separate affair altogether. While some parents are quite willing to accept such events as "par for the course" others are definitely not! Here, again, emotional reactions had to be talked through. Concerns for the physical safety of their own children, combined with a fear of not really understanding the disability, resulted in considerable anger in some instances. The lesson learned from this aspect of Matthew's enrolment was communicate to all parents: do not concentrate on the disabled child's parents to the exclusion of others; programming for integration should not be a secret; let everyone know what is happening, why, and what the possible short-term consequences may be. Not that it is possible or really desirable, to predict physical damage, but a subtle warning can at least minimize the shock that comes from surprise.

Constant communication was maintained with Matthew's mother. We always made a point of reporting progress and discussing our plans for her son including curriculum content and teaching methods at every stage. This information was presented in a manner which provided her with the opportunity for questions and input, although she seldom took advantage of this. Whether she really did accept Matthew's disability and had come to terms with it, or whether she had actually developed a technique for ignoring it remains unanswered. At times this prompted feelings of anger, frustration, and even fatalism amongst staff. With careful management, however, these remained under control.

As a result the working relationship between staff and Matthew's mother has been a close one which has contributed to a very successful and satisfying integration program. The year proved highly successful for Matthew on three fronts: his language started to develop; his biting and scratching ceased; and with his mother's agreement he was enrolled in a special play-gym group which resulted in a dramatic improvement in his physical abilities.

In addition, the success of the integration manifest itself not only in the way the other children in Matthew' s group have accepted the boy, but in the various ways they have benefitted from his presence. First, they have gained a very positive experience of being with someone who is visually different and working through some of these differences intellectually. Second, we believe that many of the parents have also gained new perceptions of their own children and children with disabilities through the classroom interactions and the stories they have promoted.

Our experience with Matthew provided further learning experiences for the staff which added to our growing knowledge base about how best to provide genuine integration with children with special needs. This base was considerably broadened by Sally.

Case Example 3

Sally, a premature baby, suffered an intra-ventricular haemorrhage at 6 days of age. Hydrocephalus developed and after another bleed a shunt was introduced at four weeks. Brain damage was neither confirmed nor dismissed. Some paralysis was suspected and weekly physiotherapy was carried out for most of the first year of her life. A 20% convergence was diagnosed in the left eye and, in addition, (but quite unconnected) she underwent a double hernia operation at 18 months. The totality of this experience had a profound impact on her social and emotional development and on her parents' ability to deal with the trauma.

Sally came to us at 10 months of age mainly as respite care for the mother. As the parents said, "Sally is a bit of a worry." Staff were briefed about the shunt, the eye, dangers of her falling, being hit on the head and a number of other medically related matters, the most notable of these being the family history of a degenerative mental affliction, newly apparent in a 6-year-old cousin.

We had some doubts about coping with Sally. It would be fair to say that we felt a certain degree of fear and desire to overprotect. We began to be beset by the "what if ... " syndrome. The mental and physical state of the parents did little to encourage enrolment of the small girl. After all, accidents do happen. Research has shown that in child care, toddlers suffer the greatest number of accidents and that head injuries account for most of them. Even a glancing blow to the staples holding the shunt may have dire consequences. However, another talk to her parents convinced us that we could not deny the needs of the parents and to take Sally in for a regular two days a week.

Sally was indeed a "bit of a worry", but not quite as we had expected. She walked at 11 months and quickly demonstrated a total lack of any fear in running down slopes, jumping off tables, climbing whatever she could, and hiding in small places. She was also very articulate for her age and, despite the high decibel level, used her speech to indicate some remarkably well developed cognitive abilities. This had the effect of keeping us on our toes both physically and verbally. It was quite obvious that their was no need for a special program to aid her development. In fact, at times when her level of risk taking exceeded ours, it was necessary to hold her back.

The major part of this integration effort was aimed at the parents. They demonstrated considerable sadness about the child's circumstances as well as anger for their own inadequacy in coping with her. Overprotection was mixed with frustration at the difference it had made to their lives and their relationship. Not that they did anything other than the best for the child but long-term exhaustion combined with doubts and guilt about their abilities to cope, were obviously taking their toll.

These had to be talked through in the context of the integration program and life in the early childhood setting, over many sessions. The greatest danger, as we perceived it, was to find ourselves in the roles of counsellor of psychologist for which none of the staff were trained. Fear of saying the "wrong" thing to a parent compounded the growing exhaustion of coping with a very active but fragile child in an environment with many other children—all with individual needs. In this situation management and support of staff are essential to the successful outcome of such integration programs.

Conclusion

The three case examples mentioned above exemplify some important learning experiences. The presence of the children in the centre stimulated discussion, research and literature searches over a period of several years. There have been many more children with special needs enrolled and each one has raised issues and concerns requiring considered decisions and solutions. To many people working in the early childhood field the questions may not be new but we have come to believe that the true value of the answers lies in the process of uncovering them.

That process of dealing with young children with special needs in the preschool setting includes a need for empathetic management of the staff and parents involved. It requires a high level of communications between all staff, all parents, and consulting professionals. The process also requires provision for involvement of the parents of the child with a disability in the planning and implementation stages of the integration programs.

Above all, perhaps, it requires staff to understand the effects a child with disabilities may have on the parent or parents of the child. It also requires staff to assess their own feelings and attitudes about the parents, the child, and themselves and to develop strategies for coping with them—strategies that should be supported as part of the overall management of an integration program.

References.

Baxter, R. A. (1988). The integration of very young, physically handicapped children into child care centres. In A.F. Ashman (Ed.), *Integration 25 years on* (The Exceptional Child Monograph No. 1) (pp. 85–92). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Bricker, D.D. (1978). A rationale for the integration of handicapped and non-handicapped preschool children. In M.J. Guralnick (Ed.), *Early intervention and integration of handicapped and non-handicapped children* (pp. 3–26). Baltimore, MD: University Park Press.

Bricker, D.D. (1986). *Early education of at-risk and handicapped infants and toddlers, and preschool children.* Illinois: Scott Foresman.

Charlesworth, R., & Hartup, W.W. (1967) Positive social reinforcement in the nursery school peer group. *Child Development, 38,* 993–1002.

Crickmore, B.L. (1991). Coping with a sub-culture: Children with disabilities. In R.A. Baxter (Ed.), *Working smarter ... Not just harder* (pp. 47–52). Sydney: Australian Early Childhood Association.

Florek, A. (1986). Integration—Or bandwagon hypocrisy. *British Journal of Special Education, 13,* 52.

Hartup, W.W. (1978). Peer interaction and the process of socialization. In M.J. Guralnick (Ed.), *Early intervention and integration of handicapped and non-handicapped children* (pp. 27–52). Baltimore, MD: University Park Press.

Lewis, G.F. (1990). Issues in evaluating early intervention programs: The impact of the Education Support Service (Inc). In J. Relich, S. Docket & S. Farmer. (Eds.), *Learning and early childhood: How important are the early years* (pp. 48–56). Sydney: Australian Early Childhood Association.

White, B.P., & Phair, M.A. (1986). "It'll be a challenge!" Managing emotional stress in teaching disabled children. In J.B. McCracken (Ed.), *Reducing stress in young children's lives* (pp. 136–140) Washington, DC: National Association for the Education of Young Children.

Winkler, L., Waslow, M., & Hatfield, E. (1981). Chronic sorrow revisited: Parents vs. professional depiction of the adjustment of parents of mentally retarded children. *American Journal of Orthopsychiatry*, *51*, 63–70.

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CHAPTER 12

A Model for Providing Specialist Therapy-Support Services to Children with Physical Disabilities Who are Integrated Into Mainstream Schools in City and Rural Areas

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The Regency Park Centre for Young Disabled is a division of the Crippled Children's Association of South Australia and has as its main objective the provision of comprehensive services to young people in South Australia who have physical disabilities. The Centre is situated 6 km from the centre of Adelaide and includes preschool to secondary school educational programs plus a range of rehabilitation services.

The literature contains many definitions of integration with varying emphasis on educational and social factors. Within Regency Park Centre, integration is seen broadly as placement in the most appropriate educational and social environment, in a setting (or settings) that maximise the opportunity for children to achieve skills necessary for optimum quality of life. This approach encompasses the concepts of educational integration (mainstreaming) and also incorporates the broader social aspects of community integration (Hegarty, Pocklington, & Lucas, 1981; Horne, 1982).

Early Integration Attempts

In the early days of Regency Park Centre the educational options for students in South Australia who had physical disabilities were limited to either the

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Centre-based programs or mainstreamed local school placement. Students who were mainstreamed (i.e., who attended local school full-time and in a regular classroom program) returned to the Centre to have their therapy needs met—this represented the extreme ends of what can be considered to be the integration continuum.

At that time, the students who were involved in mainstreaming were mostly of primary school age and generally had minimal disabilities. Support for the student, family and school staff was very limited. There was one peripatetic teacher employed to assist students with physical disabilities in South Australia and therapy staff at Regency Park Centre were funded to provide services for students at the Centre together with some Centre-based outpatient therapy.

For these reasons, the planning of transition from Regency Park Centre to local placement left much to be desired in terms of student and family preparation and local school staff involvement. In many instances, student placements were unsuccessful and the only alternative was for students to return to the Centre-based program.

Integration Initiatives

Over the past few years, pressure to integrate children with physical disabilities into regular classrooms has been mounting from parents, the Education Department and from the various Government bodies involved in the funding of therapy and support services. This resulted in the development of a range of integration options, with varying degrees of Regency Park Centre and local services involvement. As part of this process, it has been necessary to consider options for the range of ages and for the different types and degrees of severity of disability within the student population.

Group Integration

There are a range of group integration programs. There are those in which a group of students who attend Regency Park Centre also attend a preschool or school near the Centre for a short period (half day to two days) on a regular basis (weekly or fortnightly). They are accompanied by Centre staff who, with them, participate in some activities with a particular preschool or class group. The main purpose of this type of group integration is generally to provide the opportunity for social interaction with nondisabled peers, while educational considerations are minimal.

There are other programs in which group of students, together with Regency Park Centre staff, attend a primary or secondary school for the majority of the school program. Individual students are placed in class groups, as appropriate, and participate in both educational and social activity within the school.

Partial Integration

Another type of integration option which has continued to grow has been partial integration with options ranging from those in which a student attends a Regency Park Centre program for the majority of their time (with one or two sessions per week at a local school or preschool, mostly for social purposes) to those in which the students attend their local preschool or school for the majority of their time, with minimal Centre staff involvement. In most instances, partial integration is a stage in the transition from Centre-based to full time mainstreamed placement.

Service Development Principles

In the process of developing a range of integration options, several principles have emerged as being important to the success of the program for each student, family and local placement. These principles are as follows:

- well-planned and monitored integration can be a positive experience for children who have physical disabilities;
- supportive services are required if integration is to be maximized;
- services are best provided locally and, if possible, within the school grounds or classroom setting;
- regular reviews of students' integration progress is essential to ongoing success;
- any supportive system of servicing should have inbuilt flexibility to accommodate the changing needs of the students involved;
- local control of the integration program (or joint Centre and local control) is desirable as it means that services are more likely to meet the specific needs within students' environment; and
- parent/consumer representation in any program decisions is critical.

Adelaide Hills Outreach Service

This program had its beginnings in the interest shown by a group of enthusiastic parents from the St. Catherine School. They either already had their child with a disability at the school or sought their enrolment. All were determined to ensure that therapy support was available for their children in such a way as to enhance their integration with other children at the school.

The parents initially began by meeting with the school staff and clarifying their interests. Staff then invited representatives of the Regency Park Centre and the Catholic Education Office to join further discussions. Joint planning began toward the end of 1986 and by March 1987, a pilot program began. It aimed to provide supportive input from Centre professionals to students with disabilities already in the school (and to one student who, at the time, was about to begin attending the school). The initial plan was intended to be the model for the eventual extension of the service to surrounding schools in the Adelaide Hills area.

In the early stages of development, a program management team was established. It included parent, local school, Catholic Education office and Regency Park Centre representatives and was responsible for developing the appropriate policy and procedures and the overseeing of implementation. The Program Management team meet, as required, at the request of local school staff.

The St. Catherine's Facility

St. Catherine's is a Catholic co-educational school for primary aged children from Reception to Year 7, located at Stirling in the Adelaide Hills. The school has approximately 200 students enrolled, all predominantly of Catholic denomination. The school is built on several levels and, while some ramps have been installed, there are some areas only accessible by steps. The school is serviced by the Metropolitan Bus Service on an infrequent schedule. It is located approximately one kilometer from the township of Stirling, which is adjacent to the South Eastern Freeway, and is located approximately 20 km from the City of Adelaide.

Students involved in the program

The following three brief case studies are typical of the difficulties experienced by students attending St. Catherine's school.

One girl who was aged 9 years was diagnosed as having L. hemiplegia. She walked well but with an uncoordinated gait. She could also run and, therefore, her mobility around the school year and the classroom did not pose a major problem. Due to her hemiplegia, she has difficulty using her left hand and had some specific learning difficulties. She was already based in the St. Catherine's School at the inception of the program, having been enrolled by her parents after moving into the area from Adelaide.

A second child was a 6 year old boy with a diagnosis of cerebral palsy (L. hemiplegia). His hemiplegia mainly affected his right leg and this meant that he experienced numerous falls at school. However, he was intellectually quite bright although he has some difficulties with writing. He commenced at the school just prior to the beginning of the program at St. Catherine's.

A third child was a girl aged 6 years who was diagnosed as having congenital hydrocephalus with associated developmental delay. She had epilepsy and neurogenic bladder and bowel problems. She required a bowel management program and was also catheterized 3 hourly. At school these catherizations were performed by the Community Based Nursing Service. The girl was capable of walking but her mobility was slow and deliberate and she needed more space than other children. Intellectually, she had considerable concentration difficulties and associated learning difficulties. Her parents' priority for integration had always been for the social benefits rather than intellectual gains. She commenced integration on a part time basis after the program at St. Catherine's began and, following two terms of such attendance, is now attending on a full time basis.

What the Distant Annexe Development Program involves

The program has several distinctive features.

Therapists and peripatetic teacher visits. Whereas integrated children usually have a need to attend the Centre either after school or during school holidays to obtain supportive physiotherapy and occupational therapy, this model involves the provision of these services on site, the aim being to maximise the sense in which the children are integrated into the local setting. From the beginning, the input was planned to occur within the classroom, rather than in a withdrawal room at the school so that the time that children spend out of a classroom can be minimized. This practice ensures that the therapists' input assists the children to function more effectively within the classroom than previously and that they are integrated with other children.

There has also been an attempt to have the therapists' input be as unobtrusive as possible by explaining that the therapist is present to help all children generally rather than just the child who has a physical impairment. This means that the therapist might be involved with a group of students which would include the student with disability, rather than spending individual time with the disabled student. Therapists' visits initially occurred once per fortnight, but they have gradually decreased over time as the need decreased.

Emphasis on functional input. As implied above, every attempt has been made to ensure that any input was as practical as possible. Each input needed to help in the achievement of the overall goal of enabling children to participate in as many activities as possible with their peers, rather than achieving a goal of "clinical excellence". For example, it was not deemed appropriate to spend excessive time helping the child to achieve a clinically ideal walking pattern unless the time expended was rewarded by the child being able to participate more effectively in activities with other children.

Staff inservicing. Inservicing has been provided about general aspects of disability as well as specific items of information relating to each child's disability. The inservicing was provided prior to therapists' visits in semiformal sessions to all school staff. Further input was provided to individual teachers in the process of having contact with them in the course of therapists' school visits.

Provision of equipment. The program has enabled therapists to provide equipment such as splints, specialised seating, typewriters, as well as equipment for use in sporting activities and in the playground.

Regular monitoring and review for each child. It has always been considered important to review the program of each child at least once every 6 months to establish to what extent the specific goals for integration were being achieved. This has involved examining how the children were progressing in the areas of physical, academic and social integration. Reviews involve a meeting with parents, classroom teachers, the school principal; the Catholic Education Office Special Education teacher, any community support persons (e.g., Community Health Nurse) and any therapists involved from Regency Park Centre.

Ownership of the program by the local school. From the outset, a genuine attempt has been made to ensure that the control of the program remained with parents and the local school, rather than with the centralized service of Regency Park Centre. To this end, the school was responsible for initiating requests for therapists' visits, requesting further inservicing, for requesting when and how often they wanted reviews and also for calling further Program Management Team Meetings. It was seen as important that the school have a sense of developing competence in the area of integration of children with physical disabilities.

Evaluation of the St. Catherine's Program

The program trialled at St. Catherine's School was evaluated after it had been running for approximately 6 months. From the outset it was realized that because of the small sample size, findings would not necessarily generalize to other settings or circumstances. Notwithstanding this, the evaluation took the form of having all key people involved in the program complete questionnaires that focussed on the adequacy of inservice training, the student's adjustment and the degree of acceptance by peers, parental support, the value of reviews, the usefulness of therapists' visits, and the overall degree to which students were integrated successfully.

The main findings of the evaluation are summarized below.

Importance of inservicing

There was consensus from all those involved in the program that inservicing in regard to each child's disability was highly important and could affect the outcome of the child's integration. Several factors were seen to be important in this area.

1. The timing of inservicing needed to be carefully considered. The presentation of too much information before staff had direct contact with the student often resulted in increased anxiety. Too little information also created anxiety due to fear of "the unknown". All those involved in the evaluation agreed that inservicing must occur before the child commenced attending the school.

2. There need to be several opportunities for staff to receive inservicing as it is very difficult for staff who may never have had direct experience with a child with a disability to absorb the amount of information required in one session.

3. It is important that the "front line therapists" who are to be involved in the regular input to the child in the classroom setting are directly involved in the inservice programs.

The importance of reviews

People involved in the evaluation considered that a review of each child's progress was important for providing an opportunity to set specific goals for the integration of each child and to assist everyone in deciding whether the current input was effective in achieving the goals outlined. There was sense that the clearer and more specific the goals, the better it would be. However, it was observed that often the skill of setting specific goals had to be acquired through gradual learning—it was not automatic.

Amount of teacher time required for the physically disabled student

It was found that the student with a physical disability actually did not require significantly more classroom time than nondisabled peers. This was contrary to class teacher expectations. Teachers found that it was more important to know about the child and the disability so that realistic expectations for achievement in the various areas could be set, and to understand how to relate to the child within the classroom.

The activities that class teachers found to be time consuming were the extra administrative tasks such as meetings with therapists and scheduling the review meetings which were essential. These additional activities had implications for obtaining relief teaching support which enabled the teacher to be released from the classroom.

The need for extra assistance

This point was raised by several participants in the review process, but not specifically in relation to the child with a disability as it was for assisting generally with the large numbers of students in the classroom. It was recognized, however, that if students with more severe physical disabilities were involved in the integration exercise extra assistance would be required.

The usefulness of therapists' visits

There was a general agreement that the therapists' visits were useful and assisted the school staff to meet students' needs more effectively. Initially, there was an expectation that therapists would spend more time with the student directly, but as teacher confidence grew, there was a realization that special input was not required once the teacher had developed the skills through observation of the therapist with the child and discussion of what was needed. There was unanimous agreement that teachers should request therapist's visits as they were required.

Acceptance of the student with a disability by peers

While staff stated that this occurred in all cases, they observed that the process took longer than for a nondisabled child. The outcome of the review process indicated that each of the children were successfully integrated—this was based upon their academic progress, ability to manage physically around the school, and the degree to which they were accepted socially and their ability to participate in activities with other students.

Cost effectiveness

The program was seen to be quite cost effective for the Regency Park Centre because of several factors.

1. The program did not involve employment of extra staff, but rather the deployment of existing staff from providing services at a central facility, to providing services at the local school.
2. The focus on equipping local school staff with the necessary skills to manage a child in the school tended to result in teachers stating that they

considered they could cope without further input. Thus, the therapist's involvement was not continuous and could then be allocated to assist other children.

3. The focus on ensuring that children receive functional skills prevented excessive use of therapist's time being devoted to perfecting a skill that would have minimal integration benefits for the student. A therapist providing input from a central facility may not have as clear a perception of the functional skills required and may be guided more by optimal clinical performance. This can be a costly alternative.

It was recognised that despite the points noted above, there were considerable initial costs involved in establishing the program (mainly staff time involved in numerous meetings). However, the expansion of the project benefitted considerably from the development of a clear model thereby minimizing establishment costs.

Expansion of the Service

Adelaide Hills expansion

Following the evaluation, the need for direct input to the students with physical disabilities at St. Catherine's diminished generally to one of monitoring by regular reviews. Teaching staff have nevertheless remained aware that assistance from a visiting therapist is as near as the phone. The reduction of staff time at St. Catherine's has permitted expansion of the service to the surrounding Adelaide Hills area and it is now called the Adelaide Hills Outreach Service. The disabilities of the students involved include spina bifida and cerebral palsy and the services which have been required have included demonstration of lifting techniques, hydrotherapy suggestions, specific therapy assessments, programming and consultation.

Replication in Adelaide northern suburbs

A further annexe for nine children with physical disabilities living in the northern suburbs of Adelaide has been established on the campus of the Madison Park primary and junior primary schools. These children are individually placed in age appropriate classrooms throughout both schools. For this annexe additional services have been provided. A modified bus has been allocated to transport the children between home and school and on required excursions. A full-time special education teacher, a half-time school assistant and a full-time enrolled nurse, who also drives the bus, have been allocated. The feedback from local school staff, parents and special support staff has been very positive since commencement of the annexe in Term 4, 1990.

In addition, a preschool speech and language program commenced in Term 3, 1990 at the Valley View Kindergarten. This program is a joint initiative with the Children's Services Office, and involved co-located intensive therapy and education, and integrated sessions. Nine children who have severe speech and/or language disorders are served. Special education and preschool assistant staff are provided through the Children's Services Office, with speech pathology and other specialist support through Regency Park Centre.

Interagency program in Adelaide's southern suburbs

Regency Park Centre has participated in the development of an intensive therapy/education program for preschool children who have severe multiple disabilities at Marino Kindergarten. Since Term 1, 1990, six children have been involved in the program with a team of therapists and teaching staff from specialist and generic agencies in the area. Staff liaise with the other services accessed by the children to ensure that each child's program is coordinated.

Replication in Adelaide metropolitan area

Visits by specialist therapists to many metropolitan schools into which children with physical disabilities have been integrated now occur routinely within the general metropolitan area of Adelaide. The principles of successful service delivery established in the St. Catherine's model have been successfully translated into these visits and have received consistently positive responses from the schools and consumers.

Country programs

In response to local initiative and interest in obtaining and owning a service, visiting therapy services have now been established in all of the major centres in rural South Australia. The first area to set up a service, in September, 1988, was the Riverland, a fruit growing area, 230 km north-west of Adelaide along the Murray River. The model components of localised assessment and program planning alongside, and together with, equivalent local therapists in family homes, preschools and schools were incorporated. The enthusiasm and energy of local therapists and educational staff has been rewarded by significant progress of all the children involved. The number of children who are using the service has grown significantly over time.

A second visiting program commenced in November, 1988 in Port Pirie—of the three mining towns in South Australia's "Iron Triangle" the closest to Adelaide. The other two towns are Port Augusta and Whyalla. Since then further country outreach programs have been requested and established in the Fleurieu Peninsula, the upper and lower South-East and upper and lower Eyre Peninsula regions of South Australia. The flexibility of the model of service delivery has allowed idiosyncratic approaches to be used for each country area with no loss of benefit to the students with a disability or to the family. It has been rewarding to obtain the very positive feedback from local therapists that "this is what we have wanted for so many years" and from parents "at last this may mean that we will not have to travel to Adelaide quite so often."

Conclusion

Often in the past it has been the experience of parents and professionals that the large Centre for children with a disability in the city owns all the expertise and that it is extremely hard to gain access to it. Moreover, the experience frequently has been that experts appear briefly, provide incomprehensible instructions that are largely inappropriate to the very specific setting in which the child is based and, then, disappear back to their Centre never to be seen again. Often little thought has been given to continuous programming which takes into account available resources.

The model of service delivery which has been developed by the Regency Park Centre is a genuine attempt to transfer the ownership and design of the programs to the local people, while at the same time ensuring ongoing supply of specialist therapy resources meet the short- and long-term needs of physically disabled children and their families. It is the belief of outreach staff of the Regency Part Centre that ongoing commitment to providing such servicing is essential if children with physical disabilities are to be truly integrated into the communities in which they live.

References

Hegarty, S., Pocklington, K., & Lucas, D. (1981). *Educating pupils with special needs in the ordinary school.* London: NFER Nelson.

Horne, M.D. (1982). Facilitating positive peer interactions among handicapped and non-handicapped students. *The Exceptional Child, 29,* 79-86.

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CHAPTER 13

Developing Curriculum and School Organization to Integrate "Disruptive Students"

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Three years after completing the writing of the Report of the Ministerial Review of Educational Services for the Disabled: *Integration in Victorian Education* (Collins, 1984), Fulcher (1988) expressed grave misgivings about the progress of integration in that state. Surveying the Victorian Education Department's *Compendium of Statistics*, Fulcher demonstrated the increases in spending on segregated settings since the promulgation of integration as Education Ministry policy.

Perusal of the Melbourne press since the 'Integration Report' provides testimony to an acrimonious contest between the goals of integration and the politics of its implementation. The Teachers' Associations were able to move the Minister through the "resources debate" to place a caveat upon all children's rights to an education in the regular school. Integration has afforded disabled students in Victoria the right to be enrolled in their neighbourhood school, while their admission may be delayed for unspecified periods. Integration has become a victim of bureaucratization.

Further disquiet should be prompted by the fact that integration has not encouraged a movement of students from segregated settings to the regular classroom. Increasingly, children within the regular schools are being diagnosed as socially/emotionally disturbed; maladjusted; disruptive; or as

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having special educational needs. Integration resources are subsequently being utilized in administering to their now formally labelled deficits. The social and educational consequences of such assignation to integration status are devastating for those children. Integration unwittingly has provided the machinery for the marginalization or segregation of more students.

This process of identifying and treating this group of disruptive students represents the focus for this discussion. Typically reactions to disruptive behaviour concentrate upon the pathological, socio-economic or familial deficiencies of the student in order to generate solutions. This perspective is flawed in its disregard for the organizational and educational factors which influence disruption in the classroom.

Effectively this behaviourist perspective has summoned a call for more draconian responses to disruption in the classroom. Reintroduction of corporal punishment, banishment to holding centres away from the educational mainstream, or a police presence in schools are the most common suggestions for controlling aberrant behaviour. Solutions, it is suggested, lie in the form of more extensive sanctions of control rather than the teacher being reskilled in behaviour management strategies, so that crises may be confronted, and classroom dissidents put down. Previously, I have referred to this as the Dirty Harry Approach. Poised in a state of suspended readiness, behaviour management manual in hand, we await the student who will 'make our day'.

Control may also don a more human face. Counselling, therapy and pastoral care are often enlisted as alternatives to the more traditional forms of coercion. These too have been subject to critical observation (Cohen, 1985; Rich, 1979). Responsibility for the resolution of the problem is removed from the student and the curriculum. Students are removed from the classroom and their peers while they are counselled or receive therapy. Teachers too are frequently removed from the classroom to act as "corridor confidants" (Knight, 1988). Consequently, discipline is no longer considered a teaching concern, it has become a welfare or counselling issue.

The Importance of a Theory of Discipline

The characteristically Australian aversion to theory as an academic indulgence is but one aspect of the way in which teachers are systematically lobotomized (Boomer, 1983). Like Boomer, I prefer Lewin's (1946) view of theory which suggests that there is nothing as practical as good theory. Devoid of theoretical grounding, or a hook on which to hang our pedagogical coat, teachers and policy makers become easy prey for the gurus. The plethora of packages to solve discipline problems and seduce education budgets are symptomatic of this problem.

The conceptual distinction between discipline and control has particular importance in educational discourse. Its substantial intellectual tradition clearly was overlooked by the Ministry of Education, Victoria (1983) policy makers when revising that state's Discipline Regulation XVI. Long ago, Locke was concerned that the severities of control measures would "breed an aversion to that which it is the tutor's business to create a liking to" (1693, p. 114). Expounding further upon this view, Dewey argued that control has the propensity to generate and redirect aberrant behaviour "so that henceforth things appeal to him (the student) on the side of trickery and evasion" (1916, p. 26).

Hargreaves' (1967) study of Lumley Secondary Modern where 'Clint' confounds his teachers through elaborate copying systems to free his time for "messing", provides a sequel to Locke and Dewey's postulations. More recently, research has been conducted into the ways in which students develop strategies to dupe teachers and avoid control measures (Woods, 1985).

British and Australian school-based research indicates that disruption has more to do with considered and purposive resistance to inadequacies in teaching, curriculum, and unfair disciplinary practices than it has with student pathology or home background (Connell, Ashenden, Dowsett, & Kessler, 1982; Rutter, Maughan, Mortimore, Ouston, & Smith, 1979; Slee, 1988; Willis, 1978). Thus, discipline becomes an educational problem where the curriculum and processes of schooling require scrutiny. Put simply, students need to see connections between the goals of what they are doing, how they are doing it, and viable destinations in the labour market.

Wilson (1971) and Smith (1985), in distinguishing between control and discipline, regard the latter as intrinsic to the educational process. This is not alarmingly new. Polk and Schafer (1972) and Pearl (1972) are among those who have long advocated the role of socially relevant curriculum and rational forms of school government in maintaining discipline.

A Reassurance for Classroom Teachers

Be assured, what has been indicated above is not to say that classroom disruption is tolerable because we have some level of academic insight into its causes. Classroom disruption is a major impediment to learning and it is imperative that disciplined education becomes a fundamental educational objective for the whole school community. Discipline must be perceived as different from punishment in order to overcome the perennial problems arising from the imposition of punitive sanctions against deviant pupils after the fact. More expansive questions should occupy our discipline policy formulation agenda:

- Why do students become disruptive?
- Why are students disruptive in some contexts and not in others?
- Why is suspension more prevalent in some schools than it is in others? Why are suspensions more common at particular junctures of schooling?
- Why is the rate of suspension increasing despite falling enrolments?
- Why is there no formal review of suspension rates in order to exert departmental influence over schools' usage of the suspension sanction?

Analysis of the development and application of discipline policy in Victoria reveals a number of shortcomings. It is these shortcomings which should provide the insight and impetus to develop more educational approaches to policy development in this area.

Abolition of Corporal Punishment—A Victorian Alternative

In December 1982, the Minister-Elect announced that corporal punishment would be abolished in State Schools prior to the commencement of the following school year. Pursuant to abolition, the Working Party on the Abolition of Corporal Punishment was established. The *Report of the Working Party on the Abolition of Corporal Punishment* (Maddocks, 1983) reveals a tension between that working party's espoused vision for school curriculum and its preferred course of action.

Despite the educational tenor of these prefatory comments, research, consideration or suggestions concerning "strategies for management of student behaviour, including self discipline" was eclipsed by the document's almost exclusive preoccupation with reviewing the regulations and procedures for the suspension and exclusion of students. Three of the Working Party's 32 recommendations to the Minister related to the development of self-discipline or the development of student management strategies. Suspension remains the cornerstone of this State's approach to discipline.

Labyrinthine guidelines were despatched by the Education Ministry which established new procedures for an Inquiry into suspensions in order to derive mutually agreeable outcomes. Paradoxically, those procedures summoned a new agenda of issues rather than contributing to solutions or disciplined schooling. These problems have been canvassed in detail elsewhere (Slee, 1984). Suffice to say that the problems revolved around issues of due process and advocacy; cumbersome procedures, paperwork, and administration; increased labelling, segregation and dossier compilation of students; and, not surprisingly, a lack of effective options for change following the Inquiry.

Changes to Suspension: A Political Response

As had been foreshadowed, a Ministerial Review of School Discipline Procedures was established in the latter part of 1984 to respond to the problems that had arisen from the revised suspension guidelines. Specifically, the Review was designed to examine the efficacy of the regulations in the production and implementation of positive codes of behaviour and supportive practices within schools which attempt to redress issues at the school level, and to recommend on any necessary changes (Collins, 1984).

Their work completed, *School Discipline Procedures 1985* was subsequently distributed to all schools. This document comprised an amended Regulation XVI and a description of sanctions: detention, suspensions, Conferences and Inquiries, which were to be applied where acceptable standards of behaviour were transgressed. As the Minister conceded, "a greater degree of responsibility in resolving these issues will be carried by schools and regions" (Cathie, 1985, p. 3). This politic shifting of responsibility was highlighted by changes to the mandatory conditions for the application of an official Inquiry into suspension. Whereas previously a student had to come under official scrutiny after 10 days of cumulative suspension while at school, this was altered so that students only came to an Inquiry following 10 days of suspension in a school year. Effectively, the Minister had conceded to schools' requests to be able to suspend students more frequently without official restraint.

A cursory glance at the literature concerning suspension suggests that it is a less than satisfactory palliative for disruptive behaviour. The exhaustive Dettman (1972) Report *Discipline in Secondary Schools in Western Australia* provides a comprehensive analysis of issues relating to discipline and pays particular attention to the deficiencies of the suspension sanction. After evaluating both international research and the results of large surveys of teachers, students, parents and school administrators, Dettman concluded:

> If the suspension is being used as a punishment for the purpose of deterring extremely deviant behaviour, then it should be realized that it is relatively ineffective. The students most likely to incur this punishment are the students who dislike it least. For these students, suspension may even, inadvertently, become a reward. Gratification may come from being singled out for the apparently ultimate form of punishment. The student's peer group may elevate him into a hero who easily manages to accommodate the worst that the school can do (1972, pp. 158–159).

The work of American researchers including Cottle (1976), Kaeser (1979), Neilsen (1979) and Bennett and Harris (1982) endorses Dettman's findings and points to problems of the disproportionate suspension of students from minority groups, labelling problems, and the deterioration of school climate and staff morale as further evidence of the dubious value of suspension. British research (e.g., Galloway, 1982; Grunsell, 1980; Lawrence, Steed, & Young, 1983) highlights the disparity of suspension rates between schools, prompting questions about school governance and curriculum.

Research into suspension in Australia is scarce. Western Australia has produced the most thorough work in this field. Following the previously mentioned Dettman Report, Dynan (1980) reviewed the practices of schools in that state to evaluate the relationship between school processes and disruptive behaviour. Expressing reservations about the frequent use of suspension as a panacea for disruptive behaviour, Colliver (1983) emphasized concentration upon a range of in-school programs. During the following year the Research Branch of the Education Department of Western Australia released a substantial discussion paper *A Study of Student Suspensions*. The paper reviewed literature pertinent to suspensions in other countries; explored local case studies of suspended students to evaluate the efficacy of the sanction; analyzed state wide data; and significantly, it explored the policy implications for schools and the education bureaucracy inherent in addressing the need to improve the quality of life in schools

(Hyde & Robson, 1984). Taking up the issue of *Disruptive Behaviour in Schools*, Louden (1985) responded to the advice of Hyde and Robson by focussing upon a Whole School Approach; Regional Support Teams and the Classroom Relationships Project in its recommendations in preference to refinements of the processes of suspension and exclusion from school attendance.

Findings from the Local Data

While such a cursory glance at the literature concerning suspension suggests that it is a less than satisfactory palliative, observation of suspension data in Victoria provides additional cause for concern. While I am prevented from publishing data collected in my own research, I am at liberty to discuss some of the general trends (Slee, 1987).

Volume

Suspensions have continued to increase since 1981, with significant rises following the amendments to the suspension guidelines in 1983 and 1984, despite a corresponding decline in the total school enrolments. This continuing growth is alarming when linked to the Dettman study (1972) which we noted suggested that suspension was most effective when least used. Furthermore, it raises doubts about the level of deterrence established by suspension.

Year levels

There is an alarming leap in suspensions from Year 6 (the last year of primary school) to Year 7 (the first year of secondary school). This has not led, as logic would suggest, to substantial analysis of the differences between primary and secondary schooling in order to allay this trend. It is important to stress that this escalation in suspension rates at this level is not simply a welfare matter as many developmentalists would suggest. It is essential that we consider those organizational or contextual factors that cause distress during transition as well as the myriad of pedagogical issues such as changed curriculum expectations, unclear educational goals in secondary education and the impact of changed teacher-student interactions on student assessment.

The complex issues relating to the goals of secondary schooling and the spectre of the labour market crisis are indicated by the continuing growth of suspension throughout the middle school years. It would seem timely to shift our gaze from the postcompulsory years of schooling to include the middle school in education policy development.

School effect

Similar to the findings in Western Australia (Hyde & Robson, 1984), Britain (Galloway, 1980, 1982) and the United States (Wu, Pink, Crain, & Moles, 1982), some schools in Victoria apply suspension with greater alacrity than others. While socio-economic class is frequently offered to explain such inconsistency, the weight of research suggests that it has more to do with variables within the organization and ethos of the school itself (Rutter et al., 1979; Reynolds, 1976; Schostak, 1983). The discretionary responsibility for the application of suspension by principals provides explanation for many of the anomalies which arise between schools.

Transfers

Increasing numbers of students are being transferred to other schools, or segregated settings, following their suspension. The educational and administrative implications of these trends have proven extremely damaging for students and teachers alike. The legal debates over the past year concerning the conditions of readmission after suspension in New South Wales provides a salutary example.

Recidivism

Suspension is undermined as a reformative measure by analysis of data which yields a picture of increasing rates of multiple suspension for students. This trend mirrors the findings in the United States and Western Australia.

Anomalies such as these and the extension of resources to administer suspensions point to deficiencies in the approach to discipline that has traditionally been adopted. Doubts about the educational efficacy of suspension are summoned by the continuing increase in its application with no appreciable effect upon classroom behaviour or levels of teacher stress. Proper provisions for advocacy for students and parents needs to ensured in order to prevent litigation such as is now occurring in New South Wales over school suspensions.

Why the Shortcomings?

Many of the reasons for the problems which arose following amendments to Regulation XVI - School Discipline relate to shortcomings in the new guidelines, others to shortcomings in the process of policy development which failed to consider research findings or policy developments elsewhere. Moreover, the discipline issue has been cast within the strictures of an individual perspective. Problems in schools are predictably described in terms of the deficiencies within the pathologies, culture, class or families of individual students. Consequently, to resolve problems in school, the individual student must be counselled, treated, withdrawn, punished or expunged until compliance is assured. Coulby and Harper (1985) have challenged the individual perspective which has generated a category of student known as the "disruptive pupil":

> If we perceive a situation to be disruptive, then this is a temporary state of affairs, and one which involves several participants. If we perceive behaviour to be disruptive, then this is something which can change into other more appropriate behaviours. But if we perceive a pupil to be disruptive, this is somehow something to do with his/her personality or nature. This means that we are more likely to regard it as permanent and

> difficult to change. We will probably then see any incident in which a "disruptive pupil" is involved as caused by him/her than as a clash between various participants within a specific context . (pp. 3–4)

This invites a fundamental challenge to our current definitions of problems in schooling as used in the 1984 Victorian *Integration Report* (Collins, 1984) and our entrenched modes of service delivery for those variously described as disturbed, disruptive, maladjusted, acting out, phobic, or truant. This list is only a beginning to the lexicon of the psychologists, special educators and teachers who work with those students for whom the schooling process (and, it must be stressed, their reactions to that process) has marginalized. Treating individuals is a comfortable practice as it leaves us free to accept the legitimacy of those institutions we serve, and which have served us so well.

School Effectiveness and School Climate

In their study of schools throughout the United States, Wu et al. (1982) found that suspensions were likely to be more frequent if:

- teachers are seen by students as relatively uninterested in them;
- teachers believe that students are incapable of solving problems;
- disciplinary matters are handled largely by administrative rules;
- the school is not able to provide consistent and fair governance;
- there is a relatively high degree of academic bias among school personnel; and
- there is a relatively high degree of racial bias present at school.

Thus, from an analysis of the data collected nationally, they concluded that suspension rates are more affected by the ways in which different schools operate than by the ways in which students in different schools behave. This perspective has been supported by the work of researchers elsewhere like Rutter et al. (1979), Reynolds, (1976, 1985), Hyde and Robson (1984), and Ramsay, Sneddon, Grenfell and Ford (1983).

Using the implications of this line of enquiry, Pink (1988) sought to identify and proliferate exemplary school programs in schools in Kansas as the basis for the development of a guide to effective schooling elsewhere. As Ball (1988) argues, this remains a problematic area of education policy as it is open for ideological interpretation as to what constitutes an effective school program, and therefore, also to abuse by policy makers with vested interests. This, however, does not entirely dismiss the fact that some schools are more successful than others in including more of their students in the school program.

Ramsay and his colleagues in New Zealand found that the successful schools within the cohort of schools they scrutinized had a number of features in common: (a) a clearly articulated philosophy or statement of goals; (b) clear patterns of communication; (c) democratic decision-making structures; (d) systematic monitoring of student progress; (e) high levels of parental participation; (f) utilization of school resources by the students;

(g) collaborative improvement of the school's physical environment; and (h) senior staff monitoring of school morale.

It is important to acknowledge that one does not have to cringe to international developments in this area of educational development. Indeed, teachers in Australia are able to look with optimism and pride to a comprehensive catalogue of program development and climate improvement initiatives in schools which has emerged under the auspices of student participation programs (Emmett, 1985; Holdsworth, 1988, Ward, 1985). Such programs have ranged from curriculum negotiation over the content and evaluation of specific courses of study, to action research programs which provide a specific service to the community, to work creation projects, to the involvement of students in school governance and the accreditation of the knowledge and skills gained through that participation as an integral or legitimate part of students' learning programs. Students have taken the initiative for major media projects which are now valuable curriculum resources for other students (*Take A Part: A Student Action Resource Handbook*, Darling & Carrigan, 1986 is an outstanding example). Student Peer Support Programs and the Student Working Party in-service networks are further examples of students (with the assistance of their teachers) taking responsibility for the identification, analysis and resolution of students' issues. As students become participants with teachers in curriculum development and school governance the connection between schooling and the future may become explicit for students which will enhance levels of commitment in schools.

A statewide study of 'initiatives to include all students in the regular classroom' was recently conducted in Victoria (Fulcher, Semmens, & Slee, in press). The project reaffirmed the findings of what has loosely been called the 'effective schooling literature.' It was demonstrated that the presence of additional specialized resources; physical, curricular or personnel, did not in themselves guarantee successful integration.

Characteristics of school organisation, pedagogy and policy practice identified by Ramsay et al. (1983), Pink (1988) and Reynolds (1985) provided the framework for the appropriate deployment and utilization of resources and personnel. As Barton (1986) has observed, successful integration is a euphemism for successful schooling.

A Word of Caution

Presently, there is a growing call for support for schools in the form of Behaviour Units, Off-site Centres, Teaching Units or Social Adjustment Centres. Notwithstanding honourable intent, this strategy is myopic. This educational shortsightedness has been well documented elsewhere, and ignored locally. In 1978, Her Majesty's Inspectorate of Schools published its report *Behavioural Units*. While commending such centres in Britain for providing alternative curriculum and structures for students, the authors were concerned that this strategy seemed less successful in the integration of students into the regular school. An evaluation of two alternative secondary centres for disruptive students in Connecticut provides testimony to this shortcoming. It was found that only 7% of these students found their way back to their regular classrooms after referral to either of the centres (Hartford Public Schools, 1975). In surveying similar centres in Britain, Daines (1981) concluded that problem behaviour reappeared in more than 60% of the students who returned to the regular classroom.

More disturbing is the fact that such centres generate their own demand. By 1984, the number of such centres in Britain had grown to 400 offering places to approximately 7,000 students. In recommending to the Western Australian Education Department that they not establish such centres, Colliver (1983) clearly adopted an organizational perspective:

> ... a centre is much less likely to change the teacher behaviour and school environment which bring to flower the disruptive potentials of vulnerable students ... the existence of a centre would in fact reduce the likelihood of change in normal school provision, because schools could get rid of their troublesome students. (p. 94)

The Challenge

The fundamental challenge for policy makers hinges upon the necessity of securing and maintaining teacher, parent and student confidence in proposed strategies for improvement whilst effecting a shift in perspective so that discipline becomes an educational rather than a management issue. Teachers require support and resources in the school if they are to effectively deal with problems in the classroom. South Australia has provided a model for such a process of policy development and implementation (Johnson, in press).

Professional development must be given a much higher profile. Models for such support are numerous and have a proven track record. Excellence in Teaching: The Classroom Relationships Project and the Whole School Approach as developed in Western Australia; the lessons from the findings of Lewis and Lovegrove (1988) in their interviews of students; Knight's Democratic Apprenticeship (1985) and curriculum guidelines for Learning and Doing (1987); the previously mentioned Student Participation Programs; and the various Peer Support Programs for students and teachers provide much scope for optimism in enhancing student commitment, preparing students for democratic citizenship and improving educational and social outcomes for all students. The evidence of research is that punitive and counselling approaches are tending to marginalize more and more students.

Much of the literature written for teachers concerning discipline in schools revolves around questions of classroom management. While necessary, classroom management procedures after the fact of disruption are only part of the picture. In themselves, they do not represent a solution for disruption in schools. The appeal of such approaches lies in their apparent delivery of control. There is, however, a tendency to overlook those aspects of school curriculum, governance and organization which contribute to students' alienation, failure, and inexorably to resistance. Moreover, these strategies do not enable teachers, policy makers or teacher educators to address the issue of the increasing marginalization of students to the margins of school life through the machinery of integration. Not only has integration enabled segregation to prosper in Victorian education, but it also has produced a new clientele for professionals to isolate within the mainstream.

References

Ball, S.J. (1988). Comprehensive schooling, effectiveness and control: An analysis of educational discourses. In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 132–152). Melbourne: Macmillan.

Barton, L. (1986). The politics of special education. *Disability, Handicap & Society, 1*, 273–290.

Bennett, C., & Harris, J. (1982). Suspensions and expulsions of male and black students. *Urban Education, 16*, 399–423.

Boomer, G. (1983). Theory for teachers and educators. In R. Bates & E. Kynaston (Eds.), *Thinking aloud: Interviews with Australian educators* (pp. 45–55). Geelong, Vic: Deakin University Press.

Cathie, I. (1985). Letter of response to the Discipline Review Committee. In M.K. Collins, *Report of the Ministerial Review of School Discipline Procedures* (pp. 3–4). Melbourne: Ministry of Education.

Cohen, S. (1985). *Visions of social control*. Cambridge: Polity Press.

Collins, M.K. (1984). *Integration in Victorian education—Report of the Ministerial Review of Educational Services for the Disabled.* Melbourne: Ministry of Education.

Colliver, R. (1983). *Severely disruptive behaviour in secondary schools: A review of causes and school responses.* Perth, WA: Education Department of Western Australia.

Connell, R.W., Ashenden, D., Dowsett, G.W., & Kessler, S. (1982). *Making the difference*. Sydney: George Allen & Unwin.

Cottle, T.J. (1976). School suspensions in America. *New Society, September*, 699–701.

Coulby, D., & Harper, T. (1985). *Preventing classroom disruption—Policy, practice and evaluation in urban schools.* London: Croom Helm.

Daines, R. (1981). Withdrawal units and the psychology of problem behaviour. In B. Gillham (Ed.), *Problem behaviour in the secondary school* (pp. 101–112). London: Croom Helm.

Darling, T., & Carrigan, T. (1986). *Take A Part: A Student Action Handbook.* Melbourne: Curriculum Branch, Ministry of Education Victoria.

Dettman, H.W. (1972). *Discipline in secondary schools in Western Australia. Report of the Government Secondary Schools Discipline Committee.* Perth, WA: Government Printer.

Dewey, J. (1916). *Education and democracy*. London: Macmillan.

Dynan, M.P. (1980). *Do schools care the student view*. Cooperative Research Series No. 6. Perth, WA: Education Department of Western Australia.

Emmett, G. (1985). The Youth Action Project. *The Educational Magazine, 42*, 28–30.

Fulcher, G. (1988). Integration: Inclusion or exclusion? In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 28–47). Melbourne: Macmillan.

Fulcher, G., Semmens, R., & Slee, R. (in press). *Successful schooling*. Melbourne: Ministry of Education Victoria.

Galloway, D. (1980). Exclusion and suspension from school. *Trends in Education, 2*, 33–38.

Galloway, D. (1982). A study of students suspended from schools. *British Journal of Educational Psychology, 52*, 205–212.

Grunsell, R. (1980). *Beyond control: Schools and suspension*. London: Writers and Readers.

Hartford Public Schools. (1975). *Alternative Schools 1973–1974: An evaluative report*. Connecticut, USA: Author.

Her Majesty's Inspectorate of Schools. (1978). *Behavioural Units*. London: Department of Education and Science.

Hargreaves, D.H. (1967). *Social relations in a secondary school*. London: Routledge & Kegan Paul.

Holdsworth, R. (1988). Student participation projects in Australia: An anecdotal history. In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 283–320). Melbourne: Macmillan.

Hyde, N., & Robson, G. (1984). *A study of student suspensions*. Perth, WA: Education Department of Western Australia.

Johnson, W. (in press). South Australia: From good school practice to effective policy. In R. Slee (Ed.), *Discipline in Australian public education*. Hawthorn, Victoria: Australian Council for Educational Research.

Kaeser, S.C. (1979). Suspensions in school discipline. *Education and Urban Society, 11*(4), 465–484.

Knight, T. (1985). An apprenticeship in democracy. *The Australian Teacher, 11*, 5–7.

Knight, T. (1987). Making the leap between learning and doing. *SET 1*. Melbourne: ACER.

Knight, T. (1988). Student discipline as a curriculum concern. In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 321–340). Melbourne: Macmillan.

Lawrence, J., Steed, D., & Young, P. (1983). Coping with disruptive behaviour. *Special Education: Forward Trends, 10*, 9–12.

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues, 2*, 34–46.

Lewis, R., & Lovegrove, M. (1988). Students' views on how teachers are disciplining classrooms. In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 268–282). Melbourne: Macmillan.

Locke, J. (1693). *Some thoughts concerning education*. London: Heinemann.

Louden, L.W. (1985). *Disruptive behaviour in schools*. Perth, WA: Education Department of Western Australia.

Maddocks, G.R. (1983). *Report of the Working Party on the Abolition of Corporal Punishment*. Melbourne: Education Department of Victoria.

Ministry of Education Victoria. (1983). *School discipline procedures*. Melbourne: Victorian Government Printer.

Neilsen, L. (1979). Let's suspend suspensions: Consequences and alternatives. *Personnel and Guidance Journal, 57*, 442–445.

Pearl, A. (1972). *The atrocity of education*. New York: The Free Press.

BEST COPY AVAILABLE

Pink, W.T. (1988). School climate and effective programmes in America. In R. Slee (Ed.), *Discipline and schools: A curriculum perspective* (pp. 199–224). Melbourne: Macmillan.

Polk, K., & Schafer, W. (1972). *Schools and delinquency*. Englewood Cliffs, NJ: Prentice Hall.

Ramsay, P., Sneddon, D., Grenfell, J., & Ford, I. (1983). Successful and unsuccessful schools: A study in Southern Auckland. *Australian and New Zealand Journal of Sociology, 19*, 272–303.

Reynolds, D. (1976). The delinquent school. In M. Hammersley & P. Woods (Eds.), *The process of schooling* (pp. 217–229). London: Routledge & Kegan Paul.

Reynolds, D. (1985). *Studying school effectiveness*. Lewes: Falmer Press.

Rich, J.M. (1979). Glasser and Kohl: How effective are their strategies to discipline? *NASSP Bulletin, 63*, 16–26.

Rutter. M., Maughan, B., Mortimore, P., Ouston, J., & Smith, A. (1979). *Fifteen thousand hours*. London: Open Books.

Schostak, J.F. (1983). *Maladjusted schooling*. Lewes: Falmer Press.

Slee, R. (1984). *Beyond the inquiry - Reflections on the new discipline procedure*. Occasional Paper. Melbourne: Melbourne College of Advanced Education.

Slee, R. (1987). *The evolution and impact of the new regulations and guidelines for discipline in Victorian Education Ministry schools*. Unpublished manuscript, Department of Education, LaTrobe University, Melbourne.

Slee, R. (1988). Goodbye Mr. Chipps, Hello Dirty Harry? Discipline or control. *Prospects, 1*(1), 11–12.

Smith, R. (1985). *Freedom and discipline*. London: George Allen & Unwin.

Ward, P. (1985). The Student Action Project. *The Educational Magazine, 42*, 13–15.

Willis, P. (1978). *Learning to labour*. Westmeade: Saxon House.

Wilson, P.S. (1971). *Interest and discipline in education*. London: Routledge & Kegan Paul.

Woods, P. (1985). Pupil strategies. *British Journal of Educational Psychology*. Monograph Series No. 2: Recent advances in Classroom Research.

Wu, S., Pink, W.T., Crain, R.L., & Moles, O. (1982). Student suspension: A critical reappraisal. *The Urban Review, 14*, 243–303.

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CHAPTER 14

Service Provision and the Acceptance of Change: Integration Across the Life-Span

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Whatever history people with an intellectual disability have is not so much theirs as it is the history of others acting either on their behalf or against them (Ryan & Thomas, 1980). In reality, persons with intellectual disability have been treated very poorly by society throughout the ages, often they were a source of wonderment, misunderstanding, fear, sorrow, amusement and superstition. The *Orientation Manual on Mental Retardation* notes as follows:

> Seen as markedly different from most people in appearance and/or behaviour, intellectually handicapped men, women and children generally became part of a group of devalued persons recognized by society as different or deviant. (National Institute on Mental Retardation, 1981, p. 1)

Service delivery reflected this attitude for hundreds of years. Many would argue that service systems still reflect this view. Most would concede, however, that significant developments have occurred. Nevertheless, tremendous vigilance is required by workers in the field, both to ensure that the progress made in service delivery is not eroded and that further development can be promoted.

In appealing to the Massachusetts House of Representatives in 1848 for support for public education for disabled people, Samuel Howe said:

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> The benefits to be derived from the establishment of a school for this class of persons, upon humane and scientific principles would be very great. Not only would all the idiots who should be received into it be improved in their bodily and mental condition, but all the others in the state and country would be indirectly benefited. The school, if conducted by persons of skill and ability, would be disseminated through the country; it would be demonstrated that no idiot need be confined or restrained by force; that the young can be trained for industry, order, and self-respect; that they can be redeemed from odious and filthy habits, and there is not one of any age who may not be made more of a man and less of a brute by patience and kindness directed by energy and skill. (Scheerenberger, 1983, pp. 103–104)

So here we have principles expressed over 100 years ago that would be regarded as admirable today. However, there was clearly a gap between philosophy and practice then, as there is now.

Throughout the 1800s and first part of this century, institutions flourished as people with an intellectual disability were seen as a menace. Segregation was actively promoted; the institutional movement dominated and, today, people with an intellectual disability continue to suffer from this legacy.

Changes began in the 1960s as a result of a number of factors including the growth of a parent movement, the experimentation, with and development of, community-based services by that movement, the discovery and exposure of institutional dehumanization on a vast scale, the impact of the new concept of normalization and the class action suits in the United States. During that time the United Nations General Assembly adopted a declaration of general and special rights of "mentally retarded people." The concept of normalization began to permeate service provision and importantly, governments began allocating increased resources. In most States, however, institutions of substantial sizes organized along hospital lines still exist despite efforts demonstrating the success of community living. Full-time education for all is also far from a reality, with post-school education and vocational schemes remaining underdeveloped.

In Australia, the Commonwealth Government, through the Disability Services Act, signalled substantial changes to its funding arrangements with greater emphasis on consumer participation, smaller facilities and services based in the community. Indeed, in most Western countries, there is a growing acceptance of the need to continue to improve and develop services in accordance with the principles of social role valorization and the least restrictive alternative.

The more recent advances include:

1. the passage of laws in a number of countries and States which provide for an education for all children regardless of disability;
2. the development of self-advocacy groups;
3. the organization of international conferences where parallel and mixed sessions are organized with people who have an intellectual disability;

4. the use of small living environments in the community;
5. the development of educational programs in regular schools;
6. the progressive closure of institutions in a number of countries;
7. the provision of information services to people with an intellectual disability in a format they can understand; and finally,
8. the development of mental retardation research centres in the United States covering a broad spectrum of basic, clinical and applied study (Begab, 1984).

We are now in an era of intended reform, with a proliferation of new educational technologies and new forms of residential facilities for people with an intellectual disability. There is a similar sense of wanting to break with a dark past as there was in the mid 19th century. Reform then, turned rapidly into repression (Ryan & Thomas, 1980).

There is a need for workers in our field to maintain constant vigilance so that the gains that have been made are not lost and so that development can be continued. Future progress is never assured. We can look again to the 19th century where positive attitudes towards education emerged, but this failed to mature into program development.

About what should we remain vigilant? The issues can be divided into three areas: (a) administrative concerns; (b) concerns about data and research; and (c) attitudinal problems.

Administrative Concerns

Most agencies have some underlying philosophical base (stated or unstated) from which are built the various services offered to people with an intellectual disability. Many people today would say that their services are based on the theory of social role valorization and the least restrictive alternative, or were at least moving in those directions.

The first concern raised is generally where either increased demand and/or lack of resourcing forces providers to offer a service which is inconsistent with the philosophical base. Examples of this include the continued admission of people into institutions in virtually every State of Australia and most overseas countries, the separation of children with an intellectual disability into special educational establishments and the lack of consumer participation in service planning.

The second concern relates to the administration of services when the organization sets unrealistic goals for itself that cannot be met within its resources. This also can lead to a watering-down of services, poor staff morale, and a perception of failure which attaches to the clients.

The third concern becomes apparent in organizations which fail to take proper care with their staff training programs which can ultimately lead to a degradation of services. Present policies for integration will be in jeopardy because they require broad training and experience which will not be available while training courses are based on professional disciplines, rather than on the problems of people with a disability and their families (Wing & Olsen, 1979). Training and inservice courses are required that focus on the development of positive attitudes, practical teaching techniques, and effective interpersonal skills. In the last case, we need to develop policies and procedures that support the establishment and maintenance of good interpersonal skills in both staff and clients. The quality of life of the people we serve depends, to a large extent, on how we—staff and parents—interact with the clients, and on how people with an intellectual disability themselves interact with their environment. Failure to give adequate attention to this area will threaten programs and future development.

Ryan and Thomas (1980) raised an important point in regard to training when they suggested that if care is not given to the carers, there is a danger of planning for a future that will not be realized, and for a failure that will be attributed to the supposed incapacity of the persons with a disability. The recent introduction of a new postgraduate course by the Schonell Special Education Research Centre recognizes the need to train professionals in a multidisciplinary environment. This course is designed to explore the conceptual and practical foundations of coordinated approaches to service delivery to persons with disabilities.

The Commonwealth Government recently undertook a major review of the Technical and Further Education (TAFE) colleges provision of services to people with disabilities. This review made 28 recommendations supporting the need for TAFE to provide a systematic response to the training of people with disabilities. In particular, the review identified the need for coordination in policy development, course development, resources provision, teacher training, links to external agencies and funding. The review showed that while other organizations can provide specialized roles there are no other generic training alternatives to TAFE. Interestingly, the reviewers clearly articulated the need for special courses and independent living skills training. Within some states, Queensland for example, the TAFE system has been slow to respond to the needs identified in the review. In part this has been due to administrative arrangements giving colleges significant autonomy and most have not sought to extend their services to provide programs of study for people with disabilities. In this regard I would refer to my earlier concerns about staff training—there are very few teachers within the TAFE system who have training to teach people with disabilities.

In considering administrative concerns any reference to integration would be incomplete without discussing early intervention. The provision of special education developmental units by the Queensland Department of Education institutionalizes the practice of separating young children with special needs from other nondisabled peers. Teacher training in this area has been under-developed and approaches to integration, use of therapy resources, involvement of families, interagency liaison and individualized training have varied from centre to centre. In my opinion this inconsistent approach has left fewer children integrated in preschools than otherwise might have occurred.

Concerns about Research, Planning and Data

Progress in service delivery can be dramatically reversed unless adequate planning for services is undertaken. Good planning depends upon the availability of relevant data. In this country, little attention has been given to the development of incidence and prevalence data as an initial basis for planning. At a time when our society is plagued by too much information, the field of intellectual disability is plagued by having too little information readily available for the planning of programs, and of information so scattered that it becomes difficult to gain access to it. One possible way in which we might begin to resolve this problem of lack of data is to develop a uniform data reporting system at a national level so that more rational methods of planning can occur (Rowitz, 1985).

It is now becoming apparent throughout many countries that services are having to deal with a much higher proportion of elderly people with an intellectual disability than before. I would argue that the field is not well-prepared for this development. Moreover, the field in Australia is ill-prepared for the large number of students with an intellectual disability who are, and will be, finishing their education at a special school with little or no vocational training or career options available. The potential problems that might arise from this lack of service provision are worrying and unless they are addressed, questions such as, "Well, why did we bother educating them?" might emerge. It is not too difficult to imagine what the next step might be.

In the area of applied research, Matson and Breuning (1982) reviewed 171 treatment studies and found that follow-up assessments undertaken some period after the initial training had been completed were rarely included—only six had 6 months or more follow-up data. They also argued that many treatment and assessment strategies were being pressed into service with insufficient, or in some cases, no empirical validation. This type of activity can lead to inadequate or erroneous interpretation of data which may then lead of conclusions similar to those drawn by Fernald and others in connection with the Eugenics movement.

Nirje (1985) referred to the problem which emerges when conclusions are drawn about people with an intellectual disability based upon research studies of institutionalized populations. Routine data collection and properly managed applied research are essential to ensure that progress is not eroded and that the path leads forward to progress rather than regress. Likewise, it is important that workers do not "re-invent the wheel." Developments in successful methods of service delivery, in other Australian states and overseas, must be communicated generally to people working in the field of intellectual disability. Cooperation in the sharing of information at both of these levels is most important to ensure that workers do not travel over barren ground with an expectation of success.

Attitudinal Problems

Despite the development of community support groups, the International Year of Disabled Persons (IYDP) and increased media exposure given to people with an intellectual disability engaging in valued community activities there remains an enormous attitudinal problem in our field. The problem can be directly traced to the history of service provision to people with a disability which I outlined earlier. Beliefs held about capacity and incapacity long ago still exist.

A 1984 issue of the *Campaign for Mentally Handicapped Newsletter* reported that the American Government discriminated against Australians with an intellectual disability in the issuing of visas to a number of people who intented to travel to the United States to attend a conference. The Australian delegation received a 14-day visa, while others who was not labelled "handicapped" and who went to the same conference were issued with multi-entry unlimited visas. In the same issue of that newsletter was a report on a Canadian doctor who "borrowed" five residents from a mental handicap hospital to teach medical students how to give rectal examinations.

Elsewhere, numerous other examples abound relating to instances of discrimination in regard to the living arrangements of people with an intellectual disability, their education, work and play. Unfortunately, there are public arguments amongst professional groups about the needs of these people. In this respect, Bavin (1973) warned that unless we provide an intense professional network coupled with community involvement on a large scale at the local and personal level, we shall fail in our aim of improving the quality of life enjoyed by people with intellectual disability. Social Role Valorization theory teaches us that in order to meet the previously mentioned goals we need to find roles for people with intellectual disabilities that are socially valued within the community. We also need to link people with intellectual disabilities to others in the community so that a network of valued relationships can be established.

To place and keep people in the community is relatively simple; to provide them with full community membership is something else. Because of the way services have developed in many countries, there is a belief that people with an intellectual disability should live together. This attitude needs to be seriously and continuously questioned because it has a fundamental effect on the way funds are allocated and on the way services are provided. We know that it is not always necessary for them to live together as there exist other options such as living alone, with family or with nondisabled people. To adopt the earlier belief is to lock into a limited range of service options which specifically excludes parents and families.

There needs to be a warning sounded about the attitudes adopted by some union leaders in undertaking their job of protecting their members' rights. Whilst recognizing that this is a primary function, union leaders need to have regard to the effect their public statements have on community attitudes, both toward members of the union, and toward people with an intellectual disability. Union activities do not have to prejudice service provision. When they begin to do so, administrators require both good negotiating skills and powerful argument backed up by comprehensive data.

Examples of potential prejudicial comment have included reference to the dangers of working with people with intellectual disability because of the risk of contracting hepatitis B or being assaulted. Images conveyed by these messages do not enhance the role of people with intellectual disability in our society.

The final point I wish to make on attitudinal problems concerns the failure of some politicians, some workers in the field and some people in the community, including parents, to question the use of institutional environments. The evidence is now overwhelming against this type of provision. Unless we continue to question the practices of institutions, and indeed all of our service delivery, we will fail to provide more acceptable alternatives to those of the past and fail to progress.

Education and Training

In 1977, very little concerted effort had been applied to the educational needs of children with a severe intellectual disability who were living in residential care in Queensland. From the introduction of the Government's new caring profession in that year, a major thrust began to provide training programs for all of the residents. Unfortunately, there was only a handful of professionally trained staff available to provide the essential services and it was decided to place these staff (teachers, psychologists, and therapists) together into an activity block which housed the former school. Nevertheless, the service plan recognized in a formal way that programs for youngsters with a severe disability required a variety of professional staff to enable services to be delivered successfully. Later, the programs were run jointly by therapists, residential program officers, teachers and psychologists, and this continues today.

Because of the low numbers of trained staff available at the institution and because the view was held that as many youngsters as possible should receive their education at a venue other than the residence, an intensive effort was made to have a larger number of children placed in other (off-campus) educational facilities. At one stage up to 50 children were engaged in such a program, invariably at schools run by the voluntary sector and not the Department of Education. For those who were not able to obtain a placement, a program was provided for them which was either residentially based, or located at an Activity Centre on the campus. Because of the number of children and adolescents and the staffing resources, many residents received far fewer hours of a structured program than their entitlement and right.

This situation had been highlighted earlier in an Australia-wide survey into special education conducted by the Schonell Special Education Research Centre in the mid-1970s (Andrews, Elkins, Berry, & Burge, 1979). This survey showed that children with an intellectual disability in institutions were, by and large, being denied the right to education in almost all Australian states.

In recent years, however, a number of factors have come together which have substantially redressed that situation. Using the State of Queensland as an example, these factors include: (a) the commencement of the severely handicapped program of the Commonwealth Schools Commission, called SHEPARD; (b) the commencement of a Schools Commission program to provide funds to enrich the educational experiences of children in residential care, called CIRI (these two programs resulted in part from the earlier Schonell survey); (c) a commitment from the Division of Special Education of the Queensland Department of Education toward providing educational programs for children with a severe intellectual disability; (d) the gradual integration of less handicapped children into the normal school environment thereby providing more places in the special facility; and (e) a resurgence of the parent movement in the form of the Queensland Parents of People with Disabilities. Similar initiatives have occurred in other Australian states.

The increasing involvement of teachers in educating children with severe intellectual disability has meant that teacher training received in the past is not well-suited to the new demands. Unfortunately, the educational institutions have been slow to respond to the changing needs of the country with the result that there are few programs to equip teachers with the skills and knowledge necessary to work with this group of children. This criticism can also be applied to the education received by other professionals who work in the disability field.

Because of the special needs of these children, particularly in the area of behaviour management, it is essential that staff receive both an increasing theoretical input, as well as practical "hands on" experience before working with children with a severe disability. A component of this training needs to include how one works in an interdisciplinary team and the pitfalls which may be avoided when working very closely with other professionals.

It is now recognized that no one profession can possibly hope to meet the training and educational needs of children with a severe and profound intellectual disability. Whatever venue is chosen for the educational/training program, it is essential that the programs be planned, implemented and evaluated by a team of professional workers not just teachers who traditionally have been responsible for education programs.

Because of the variety of needs of the children, it can no longer be assumed that the teacher should naturally control the learning and training process. For a particular group of children, behaviour management might be a primary focus; for another group, it may be mobility or communication training. It is conceivable that other professionals may have the dominant role to play for particular groups and at particular times. Perhaps responsibility on these various occasions need to be shared by the whole group of staff. What requires attention here also is the need for staff to be part of a natural support group to avoid their own isolation in the workplace.

The overriding consideration for children with a severe intellectual disability is to prepare them so that in their later years they will be able to live as independently as possible in the community. This could require, for example, programs to develop mobility, money handling skills, appropriate social interactions and communication skills as well as skills in dressing, toileting, road safety and travelling, just to name a few. Perhaps the biggest challenge, however, lies in creating a learning situation in which the student will be regarded as a valued person and where personal growth can occur in a supportive and happy environment.

The complexities involved in developing a wide variety of skills in our students require us to take a different approach to education than has been adopted previously. For example, there is a need to move away from traditional environments to the natural environment as the place in which to train skills. This demands that the community becomes the "classroom." It is simply inefficient to teach community living skills in simulated settings. This, of course, has implications for staffing, particularly in the provision of sufficient staff to ensure that training and safety can be assured.

An issue directly related to efficient and effective training and education is the difficult problem of having skills learned, and reinforced, at home by the parents and carers or in a residential setting. The latter is always more difficult when there is a changing staff as a result of shift work patterns and perhaps less personal involvement and commitment to the child's progress. This problem was highlighted by Cullari and Fergusson (1981) who argued that the natural contingencies in the environment may not be strong enough to maintain the program. There is a strong implication here and, indeed, a challenge to trainers to exert greater efforts to ensure that new skills can be practised out of school hours. This in turn raises a further issue.

It seems to me that there is little educational justification for the programs for children with a severe intellectual disability to be discontinued for lengthy periods of school holidays. There is no doubt that this break in training causes skills to be lost which then require time to be devoted to relearning at the beginning of the next semester or the next year. We all know that these children do not have enough time to learn as it is and interrupting training can only be regarded as inefficient, if not prejudicial. Providing continuity in training, however, will require some adjustments in our views of education especially if we adopt the position that children with a severe disability should not be treated differently from other children as a matter of course.

Conclusion

In the same way as people with more severe disabilities have been the last to move from Australian institutions into community living situations, so it seems that they will be the last to be educationally integrated. At some stage, however, we need to examine our attitudes toward people with severe disabilities and evaluate how these beliefs govern the allocation of services and resources. If we hold a fundamental belief that all individuals in society have equal rights to an adaptive and productive lifestyle, then this belief should determine the way in which resources are allocated to meet people's needs.

In making such decisions we must not allow ourselves to be sidetracked by classification and labelling systems. The view expressed here is that it is more productive to start with the norm and depart from it as necessary, rather than begin with the assumption that segregated services are required.

In summary, the educational needs of children and adults with a severe intellectual disability are complex. The critical matters which need to be addressed in this next decade are listed below.

1. The curricula offered to the trainers of children with severe intellectual disabilities are in need of urgent appraisal and upgrading.
2. Educational administrators and teachers must accept that a broadly based professional expertise needs to be brought to bear on the children's education, not simply at a consultative level.
3. A significant amount of the education of children and adults with a severe intellectual disability should be provided in the natural environment and not within traditional residential or training structures.
4. The extent to which the needs of these children and adults can be met in less segregated settings than presently available requires canvassing on a broad front.

In Australia, most State Governments are struggling with continuing criticism about either inappropriate or insufficient service provision. As public pressure continues to be applied, we must be vigilant to ensure that pressure groups do not argue for services which are outmoded or, alternatively, do not allow such services to be offered as some compensation. A decade ago, Hardiker and Barker (1981) argued that it would be a mistake to read into the changes during the 20th century a picture of evolutionary progress; the steps to progress have been, and continue to be, steeped in contradictions.

Just before closing, let me remind you of Marc Gold's view of intellectual handicap which places the onus squarely on us, not the client or student. He argued that mental retardation relates to a level of functioning that requires above-average training procedures and superior assets in adaptive behaviour on the part of society which are manifested throughout the life of both society and the individual.

All advances will remain contingent upon society's respect for the inherent dignity of all people (Scheerenberger, 1983). Society consists of you and me. The path to progress is up to us.

References

Andrews, R.J., Elkins, J., Berry, P.B., & Burge, J.A. (1979). *A survey of special education in Australia: Provisions, needs and priorities in the education of children with handicaps and learning difficulties*. St Lucia: Fred and Eleanor Schonell Educational Research Centre.

Bavin, J. (1973). The loneliness of integration: Activities of daily living. In *Proceedings of the National Spring Conference on Mental Retardation, University of Exeter, Taunton, Devon.*

Begab, M.J. (1984). Guest editorial. *American Journal of Mental Deficiency, 5*, 461–464.

Cullari, S., & Fergusson, D. (1981). Individual behaviour change: Problems with programming in institutions for mentally retarded persons. *Mental Retardation, 19*, 267–270.

Hardiker, P., & Barker, M. (1981). *Theories of practice in social work.* London: Academic Press.

Matson, J.L., & Breuning, S.E. (1982). A review and analysis of applied research in mental retardation 1974-1980. *Applied Research in Mental Retardation, 3*, 185–189.

National Institute on Mental Retardation. (1981). *Orientation manual on mental retardation* (rev. ed.). Downsview, Ontario: Author.]

Nirje, B. (1985, September). *Keynote address.* Paper presented at the Third Joint AGSSOMD/AAMR National Conference, Brisbane.

Rowitz, L. (1985). Proposal for information networks in mental retardation. *Mental Retardation, 22*, 1–2.

Ryan, J., & Thomas, F. (1980). *The politics of mental handicap.* London: Penguin.

Scheerenberger, R.C. (1983). *A history of mental retardation.* Baltimore: Paul H. Brookes.

Wing, L., & Olsen, R. (1979). *Community care for the mentally disabled.* Oxford: Oxford University Press.

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CHAPTER 15

The Integration of Students with Disabilities Into Regular Schools in Australia: Can It Be A Reality?

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If we don't measure how we are going, then we will never know if we are getting there …

Introduction

Systems wide measure of integration?

It is clear that despite all of the energy and resources directed at promoting integration in Australia (i.e., the least restrictive but most appropriate educational placement for each student with a disability), we are still not able to demonstrate the extent to which this effort has been worthwhile. There is no reliable and systematic assessment and placement process used consistently across Australia to tell us if integration is a good or bad thing for students, both disabled and nondisabled, and there never has been.

At least in other countries (e.g., USA and England) each student recognised as disabled is, by law, guaranteed an Individual Education Plan (IEP) which, with annual review, can provide some estimation of the success of integration (at least the effect of integration on students with disabilities is knowable). In Australia we still lack such a systematic and accountable assessment, placement and educational planning system. We, therefore, cannot even hope to make such an estimation.

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The extent of integration in Australian regular schools remains unknown. There may be a strong recognition of the need for integration, and some effort made to achieve it, but there remains no valid and reliable means to confirm the extent of its existence. Logical analysis, isolated case studies, and anecdotal evidence (the only type of evidence available) suggests, that as a system wide phenomenon, integration in Australian schools does not exist (Gannon, 1988; Human Rights and Equal Opportunity Commission, 1990).

Despite the clear support for the policy of integration it is most probable that it is not occurring so that each student with a disability is being appropriately educated in the least restrictive, but most appropriate, school environment. In spite of a large effort to promote the placement of students with disabilities into regular schools, it is still true that a very expensive assessment and placement process exists to assess referrals and place students away from the mainstream. Once a placement is made away from regular schools little effort is made to review it on a consistent basis, especially with the aim of placing the student back into the regular school system. Few, if any, placements are likely to be made back to the mainstream! Also, there exists a large body of both professional opinion, and research, which indicates that the system is unreliable and is of little instructional value (e.g., Algozzine & Ysseldyke, 1983; Galagen, 1985; Glass, 1983; Jenkins & Pany, 1978; Martin, 1976; Tucker, 1980; Salvia & Ysseldyke, 1985).

The inadequacy of the present assessment and placement system

Generally the existing system is not concerned with providing an appropriate educational plan for any student who is not learning. It is primarily concerned with placement. It is largely unaccountable to, and does little to involve, teachers, parents and the students in the process of developing recommendations for special placement. Even when a choice, regarding mainstream placement, is given to parents or guardians of children who are disabled, it is mainly a "Clayton's" choice. Few, if any, extra resources are made available if parents choose to keep their child with a disability in the mainstream. In most school systems the school principal has the first option of refusing such applications, and a lengthy bureaucratic struggle follows if parents wish to appeal the principal's refusal. Also the ground rules for any application for "mainstreaming" are "stacked" in favour of the Principal (Human Rights Commission, 1990).

Special schools still!

A large, and still educationally unaccountable and separate, special education school system exists to accept the students who are labelled by the present assessment and placement process. This system has available to it proven and effective assessment and instructional systems, which remain largely unused by it (e.g., Beck, 1982; Bickel & Bickel, 1986; Gersten, 1985; Goodman, 1985; Kavale & Glass, 1982; Morsink, Soar, Soar, & Thomas, 1986; Stainback & Stainback, 1984; Tawney & Gast, 1984; Waxman, Wang, Anderson, & Walberg, 1985). That is, special education classrooms are conducted much in the same manner as regular education classrooms (Gardner, 1977; Milofsky, 1974; Morsink, Soar, Soar, & Thomas, 1986). The only consistent difference between regular and special education systems is that special education has a more favourable staff–student ratio. Given the similarities between both systems it is not surprising that special education has had great difficulty in showing that it is any more educationally effective for students with disabilities than the regular education system (Martin, 1978; Sarason, 1982; Tawney & Gast, 1984).

Other major impediments to integration

Both the assessment and placement, and special educational systems were originally developed to cater for the requests to remove students from regular schools and, therefore, are the antithesis of integration. Neither of them are structured to support the return of students to the mainstream and therefore, in this way, they work against integration.

It is not likely, given the sociological (Openshaw, 1988) and ideological (Rich, 1990) impediments that exist in educational systems, that guidance and special education bureaucracies have, or will, change much to support integration on their own volition. It would be a mistake, however, to believe that self-preservation at the bureaucratic level is the main reason for very little integration occurring. It is clear from studies in a number of areas (e.g., Hargreaves, 1984; Huberman, 1983; Purkey & Degen, 1985; Sarason, 1982; Sparks, 1988) that there exists a more fundamental blockage to integration. These studies make it clear that even where top-down changes are mandated in large educational systems (e.g., laws or bureaucratic mandates supporting integration), little real change is likely unless it emanates from the bottom (i.e., classroom) level up as well.

It is also clear that little change to teacher attitudes and practice is likely to accrue from traditional inservice training strategies (Griffen et al., 1984; Korinek, Schmid, & McAdams, 1985; Rosenfield & Rubinson, 1985). While the impetus for integration continues to emanate from top level administrative directives, or changes to Equal Rights Legislation, and fails to support changes from the classroom level, the effort is doomed to fail! To date the best arguments for achieving change from within classrooms have supported strategies linked to ongoing processes and expectations of the school. The key is to link traditional informational and/or role play inservice with school based consultants who are able to provide the intensity and continuity of effort needed to ensure classroom level adoption (Fullan, 1972; Hulling, Hall, Hord, & Rutherford, 1983; Korink, Schmid, & McAdams, 1985; Kremer-Hayon & Ben-Peretz, 1985).

It is at the classroom where the main rejection of integration occurs. While teachers are philosophically supportive of integration, they believe that insufficient resources exist for them to cope properly with students who have disabilities (Clark, 1987; Parmenter & Nash, 1987; Walker, 1986; Ward & Center, 1987). Lack of resources (e.g., teacher skills, high teacher–student ratio, inadequate facilities) has always been the fundamental argument for the exclusion of students with disabilities from regular schools. The other strong argument comes from the parents of nondisabled students. Their argument is similar to that offered by teachers. That is, because insufficient resources are made available, regular classroom teacher's time will be taken away from nondisabled students, and spent meeting the new demands of the mainstreamed students who are disabled. Because it is not clear, however, what teacher time is normally devoted to nondisabled students (even before there is any integration), such arguments are impossible to substantiate. From an empirical point of view, however, the literature on streaming which has been accumulating for many decades, exists to repudiate the argument (e.g., Briggs, 1984; Goldberg, Passow, & Justman, 1966; Newbold, 1977; Wilhelms, 1958; Winn & Wilson, 1983). Unfortunately even in the face of this evidence most parents, teachers and school administrators still believe that streaming is advantageous for students!

It is clear that fundamental impediments exist to integration. The educational system cannot demonstrate that, with integration, the existing resources will be fairly allocated so as not to disadvantage students, both disabled and nondisabled. While this problem arose when segregation was the goal (in the guise of streaming students on the basis of performance, not disability), it is impossible to avoid when obviously disabled and nondisabled students will compete, face-to-face, for the resources in regular classrooms, every day of the school year. It is clear that this issue must be resolved if integration is to work. It is also clear that measures taken to date have not been successful.

If all of the research arguing strongly against streaming in regular schools has not been sufficient to convince teachers, parents and the general public that streaming does not lead to better student learning, then why should research supporting integration fare any better? A greater effort should be made to demonstrate that integration is widely beneficial. Some ongoing and public accountability of the effort must be offered. There must be a face validity for integration in terms of positive student learning.

Attitudes, expectations and reality

At the heart of the grassroots objection to integration is the fear that insufficient resources exist to cope with the perceived new demands of mainstreaming. This traditional argument about the inability of regular classrooms, as they are presently structured and resourced, to teach students with disabilities, has not been rebuffed from the public's point of view. Yet in public education, a minimum level of student learning is not quantified, and it is impossible to know whether the resources available are ever sufficient or not. Requests for resources in educational systems are usually made on the basis of political or industrial judgements and translate to an allocation of resources based on the number of students, or type of disability a student has—not, as it should be, on how difficult it is to teach certain students.

This is the crux of the matter. Integration, while perceived positively from a philosophical perspective (Australian Schools Commission, 1975; Cohen Report, 1973; Doherty, 1982), is perceived from a practical perspective as a negative phenomenon (Catlin, 1986). It is not seen as adding to educational opportunities of students. It is seen by the majority (i.e., teachers, students and parents in the mainstream of education) as something which will subtract from the existing opportunities. Even the students with disabilities, the group for whom integration was originally meant to advantage, cannot be shown in a practical manner that integration is beneficial for them. It is not demonstrably clear that regular, or traditional special education students, are, or will be, better off because of integration. For integration to work it must be clear to the majority players (the students, the teachers, and the parents from regular schools) and the minority players (the students with disabilities and their parents) that integration will happen so that there is at least no negative impact on them. It would be even more advantageous if the impact of integration could be seen to be positive for all concerned. While a large number of studies report the practical benefits of integration (e.g., Kavale & Glass, 1982; Madden & Slavin, 1983; Schiefelbusch, 1987; Sontag, 1982; Wang & Baker, 1986) translation of these effects will not occur to the school system as a whole until procedures exist to show that integration can provide practical benefits for all students.

Change To What, And Why?

Focus on each student's performance in the curriculum

Maintaining a public and ongoing demonstration of the effects of integration can only happen if in each individual case some ongoing planning and evaluation is carried out which clarifies the effect of integration at the individual level. While the present inadequate assessment and placement for special education exists, no such planning and evaluation can occur. Obviously, a fundamental change needs to be made in the existing assessment and placement procedures. Identification, assessment and placement of students should be made on the basis of achievement in the curriculum, not on the present spurious sociological, ideological or disability bases. Placement within the various options available in the educational system should be based entirely on the degree to which a student learns, given the existing curriculum and teaching resources. Arguments for assistance because of social disadvantage or a legal disability should not count!

Unfortunately, at present in Australia there is no systems wide procedure which is seen to provide an equitable support for all students having difficulty in achieving the goals of the curriculum. This omission remains a blockage to integration as I have defined it. To begin to overcome this blockage, assessment in schools needs to become curriculum based, and needs to occur on a regular basis. The most appropriate special educational assistance given to students would then be decided on the basis of student performance in the existing classroom curriculum materials (e.g., readers, workbooks, texts, classroom social behaviour norms), given the existing teacher skills and procedures. Such direct and regular assessments of performance are more likely to be understood by parents, teachers and students alike. Thus the entire process would be much more accountable than the present procedures. It would be face valid and contain the reliability inherent in task related criterion referenced tests (Beck, 1982; Deno, 1985; Germann & Tindal, 1985; Ysseldyke & Thurlow, 1983). The cut-off curriculum performance levels for deciding if special educational assistance is needed would be decided on the basis of a cut-off which supports assistance at the present level of funding for special education, so that the ever present argument regarding funds can be neutralised (this does not mean that cogent arguments do not exist, and should not be made, to increase educational funding for students who are either disabled or nondisabled, rather in this instance it is put aside to focus on a more urgent priority (i.e., determining an equitable, valid and reliable assessment and support process). The final decision regarding the need for assistance and/or placement away from a regular class would then be made by a group of involved people (e.g., teachers, parents, the student) only on the basis of curriculum performance.

The present imbalance

Unfortunately for the process of integration, school systems have neither changed their assessment and placement procedures, nor have they made sufficient effort to ensure that the instructional expertise available in regular schools matches the need created by the existence of mainstreamed disabled students. Because regular school curricula are too biased toward the high achievers in schools, teachers focus their efforts on understanding and delivering programs that are insufficient even for the bulk of students who already exist in the mainstream.

There is no deliberate emphasis in the regular school curriculum to encourage interaction between disabled and nondisabled students. In fact the opposite is true. Because of the competitive ethos that predominates in schools (especially secondary schools) very little student cooperation occurs, even between the nondisabled students (Johnson & Johnson, 1983). This is unfortunate, not only for school students, but for Australia as a whole, because research clearly demonstrates that cooperative learning programs are likely to produce more learning than competitively based programs (Johnson & Johnson, 1986; Parker, 1985; Slavin, 1984; Slavin, Leavey, & Madden, 1984). The only attempts made to accommodate integration seem to be where nonaccountable, individual educational plans are being suggested for students who have disabilities, and where resource teachers, spread thinly and with little status and inadequate training, are expected to impart the required skills for teaching students with disabilities to generally unenthusiastic regular class teachers. Australian education authorities are only committed to integration "as far as practicable" or "while recognising the needs of nondisabled children." The Human Rights Commission (1990) in a recent discussion paper comments on these "hedging" statements by saying that

> Such clauses would not appear to deny a child with a disability access to appropriate education, but the use of such clauses by education authorities, even against the expressed wishes of parents, is pronounced.
>
> Because of the inadequate allocation of resources, and the lack of commitment to implementation of integration policies, special schools, in segregated settings, remain a major focus of educational provision for children with disabilities. (p. 34)

A plan for the future

The aim of this paper is to suggest a plan for the future that will attempt to overcome the impediments to integration described above. This plan suggests an educational system which focuses on achievement in the given curriculum domains in regular schools. Assessment of students who require assistance—special education—in this system would be based on how well they are learning, given the resources normally available in regular classrooms, not on the basis of an identified disability. The main features of such a system are outlined below.

1. A hierarchy of educational service options with the top option being the regular school curriculum. Each option away from this level will have a curriculum which is set to achieve entry into the next less restrictive option. Each option will contain the same curriculum domains (e.g., academic, social, communicative, physical, independent living and vocational).
2. Placement decisions for each level of the hierarchy will be based on student performance in the curriculum at the relevant level(s) of the hierarchy, not on traditional disability categories. The decision will be one made by a group of people which will include the parents, teachers and, if feasible, the student involved. The guidelines regarding the levels of curriculum performance required for special support will be common for all placement teams in the system and will provide for the present numbers of students receiving special support.
3. A teacher preservice and inservice training strategy which focuses on a problem solving approach to student learning difficulties. This involves developing instructional expertise across ability levels as well as the present subject matter focus. The inservice training strategy should be achieved by a school based teacher consultant (e.g., a resource teacher).
4. A school curriculum which actively teaches students interpersonal social skills, how to help one another pursue individual goals and to cooperate in achieving group goals.

The implementation of this plan is predicated on the assumption that the ratio of funding available for special and regular education does not change. However, what is implied in this, or any proposal for change, is that some initial injection of funds needs to occur to provide for the extra input into teacher preservice and inservice training. The rest of this chapter will be devoted to further explaining and arguing for the above components and how they may work to promote integration.

Educational Service Options

Educational options within the public education system in Australia are mainly based on a "Cascade" system. This system is set up to allow a free flow of students both up and down the cascade of services. As explained earlier, it is the assessment process used in Australia at present that defeats integration using a cascade approach. While students flow down the range of options there is little flow upward. Not only is the assessment an impediment to upward movement, the curriculum options are liable to be different at each level and this difference will slow all upward movement. Once a student falls out of a given curriculum level, and after a time in a different curriculum, his/her potential to return to the original curriculum is drastically diminished.

While maintaining a cascade of services, this present proposal is not meant to be prescriptive in terms of the number and type of available placement options. While the notion of integration suggests only placement in the regular school, the final number and type of options should eventually be a reflection of the sum of the individual assessments made in determining what type of placement options are appropriate for individuals referred for special support.

As suggested here, there are only three levels of placement, each with a range of resource support. This is a compromise between what presently exists and what should be possible with total integration (see Table 1).

Table 1. Suggested Placement Options

Placement	1. Regular class 2. Special class in a regular school 3. Hospital or residential placement
*Levels of Support**	1. Inservice training course 2. Consultation assistance 3. Supplementary aides

*Support levels are determined by IEP review

Of these three levels, two are in the regular school environment. The only difference between the regular and special class options should be that the teacher–student ratio will be less. Placement outside of these options into the third option should only occur when, for legal reasons, the student is precluded from them by advice/control from outside the education system, (e.g., when the student is under custodial care; or when s/he is bedridden or hospitalised under the agreed recommendation of a medical practitioner and his/her parents).

Each level of placement has the same curriculum domains available. Placement in each option is dependent on a decision of an appropriately constituted group of "involved" persons after analysing the student's level of performance in each of the curricula areas.

Placement Decisions

Probably the most important change necessary relates to the way in which students are placed in the available school options. At present the most common process used is strongly professionally influenced, and based on traditional, summative norm-based tests (although at least one state, Victoria, professes to have done away with the professional bias). This process is questionable on two grounds. Firstly, it has be shown to be largely unreliable (Ysseldyke, Algozzine, & Epps, 1983) and secondly, it has little instructional utility (Heller, Holtzman, & Messick, 1982). That is, summative and normed tests provide little information that can assist teachers in instruction. On the other hand curriculum-based assessment offers a more focused, valid, reliable and instructionally useful alternative.

Placement of students is usually possible from two sources: (a) upon entry into the educational system once eligible school age is reached, or (b) after problems have been determined in achievement in the regular school.

The second possibility can occur at any age. For both types of entry, formative curriculum-based procedures have been effectively used in a number of real school situations (Blankenship, 1985; German & Tindal, 1985; Peterson, Heistad, Peterson, & Reynolds, 1985; Tucker, 1985).

The arguments for using formative curriculum-based assessments (CBA) for not only placement but also instructional decisions as well, have been made for some time (e.g., Brown, Mcnally, & Patching, 1983; Haring & Lovitt, 1969; Howell & Kaplan, 1980; White & Haring, 1980; Ysseldyke, Thurlow, & Christenson, 1983), however, it has not been until recently that their feasibility has been strongly and extensively demonstrated across an entire school system (Germann & Tindal, 1985; Tindal, Shinn, Walz, & Germann, 1987).

The implementation of CBA in the Pine County School district has already been described in detail by others (e.g., Marston & Magnussen, 1985), however, it is important for the support of the argument being put forth here, to summarise several important features.

What is CBA?

To put it simply, CBA is the process of measuring and evaluating students' performance in materials that are in supply in the classroom and which students constantly use in the process of learning. Counting the number of words read correctly in a timed (1 minute) test from a classroom basal reader is a simple example of a curriculum-based test of oral reading. Tests of this nature have been developed by teachers to cover the entire primary and secondary school curriculum (e.g., The Precision Teaching Project in Great Falls, Montana).

How does CBA work?

CBA is not simply a "one shot test." Test administration usually occurs over a period of time (e.g., each day for a week) to establish a representative picture of performance over both time, and a range of test items from the same testing domain (e.g., different pages from the same basal reader, or a different reader of the same readability). Whenever a teacher suspects a student is not coping with the curriculum materials in the classroom the process depicted in Table 2 is instigated.

The first step is for the teacher to monitor the student's performance over, say a week, to determine if the performance is below the predetermined cutoff for special education. Before outside assistance is called in, however, the teacher must also be able to demonstrate using curriculum-based data that the student has not improved given access to all of the resources (including time) and skills available within the class (this level of skill and resource is obviously going to vary from classroom to classroom). The placement team is then constituted to determine which level of support is deemed to be appropriate (i.e., the least restrictive) given the level and rate of the student's performance in the curriculum-based measures. In other words, the team must determine which level of assistance will provide the greatest level of learning, and at the same time remain closest to the regular class placement with no extra support.

The placement team has available to it all of the options described in Table 2. Once a student is provided with any of the options it is essential that curriculum-based measures are ongoing so that it will be clear that the instruction provided is being effective.

The implicit outcome of the above use of CBA is that data-based instruction automatically becomes a feature of special education. That is, as long as a student is being provided with special education the effectiveness of the effort will be continually monitored, and the effort can be readily changed when it is shown to be ineffective. Given such a heavy reliance upon CBA it is important to understand that curriculum-based measures have been shown to be technically adequate and eminently usable for the purpose just described.

Validity and reliability

It is clear that CBA procedures as described above are as technically adequate as traditional testing procedures (Beck, 1982; German & Tindal, 1985) and, in addition, they possess a face and content validity that traditional tests do not. That is, CBAs are easily seen by nonexperts as being relevant to student's learning needs.

To what extent would teachers use CBA?

Where these procedures have been used in everyday regular classroom situations (in these cases the system was imposed on the teachers, that is, they were not asked if they wanted to use it or not, they were made to use it),

Table 2. A Curriculum Performance Data Base for Special Education Support

Stage	Activity
1. Teacher suspects a student in difficulty	The first solution to a performance problem should be to offer the student a different teaching–learning approach. Certainly the onus is on a teacher to demonstrate that the range of instructional options available to him/her have been unsuccessful in producing the desired performance gains before requesting assistance. Curriculum-based measures taken over several days, using the range of available teaching strategies in sequence, will provide sufficient data for the placement team to make a valid decision
2. Placement Team called in to evaluate student's performance for special education support	The Placement Team will be able to see the student's level of performance, and determine (a) if the student is able to learn, (b) the rate s/he is able to learn, and (c) the teaching strategies which produced the learning.
3. Teacher receives:	
(i) Resource Teacher assistance • Assistance Level 1 (informational) • Assistance Level 2 (in class modelling)	(i) The Resource Teacher is able to provide: • Level 1 assistance (i.e., information and/or materials) • Level 2 assistance (i.e., direct teaching assistance with the aim of imparting the required knowledge and skill to the class teacher.
(ii) Outside Consultancy Assistance	(ii) In the cases where the Resource Teacher lacks the necessary skills, but they are known to be available, an outside consultant may be called in to provide the skills for the classroom and resource teacher.
4. Teacher receives an Aide to assist with the particular student for a given number of hours per week	Where the skill is available, but the teacher time is not, a teacher aide may be employed to provide the "extra hands" that are needed.
5. Special class placement within the regular school	All of the options available to regular class teachers are also available to special class teachers!

68% of teachers after implementation said that the entire school district should use CBAs, while only 20% said no to the same question (Marston & Magnussen, 1985). Recently a similar response from teachers in some Australian special schools were also shown to be supportive for CBA (Stieler, 1989). A note of warning here is made by Fuchs, Wesson, Tindal, Mirkin and Deno (1981). The results of their study reveal that teachers should be carefully trained and prompted to be maximally efficient in curriculum based measurement. If they are not, then the common perception of data based instruction taking too much time could become a valid one. In a summary of the question of cost effectiveness, Deno (1985) maintains that the total evidence clearly supports the overall advantage to the students and classroom teachers of curriculum based measurement over traditional normative measures.

The evaluation team

The final requirement is that the curriculum performance data should be evaluated by a group of people who have been, or will be, closely involved with the student on a regular basis (e.g., teachers and parents). In all cases, a team, consisting of all the people who are involved in the measurement and those who are likely to be affected by the final decision, should participate in the evaluation and help form the final decision. However, as German and Tindal (1985) point out, curriculum-based measures should remain the sole data upon which any placement decision is made. Of course, a suitable set of performance criteria need to be predetermined to guide the team regarding their final decision. A suitable set of criteria may well be similar to the standards adopted by Pine County (Germann & Tindal, 1985).

The introduction of CBA to guide placements in the school system would mean not only changes to the procedures used to place students, but also to teacher accountability for student learning. Given the process described in Table 2 it would no longer be possible to exclude a student from mainstream programs simply because they were disabled. The onus would be on the teacher to demonstrate that the *rate of students' learning* is basically what restricts their coping with mainstream programs. Given these proposed changes to the school system, and the implied extra skill base required by teachers, a change in teacher knowledge and skills is needed especially in terms of teachers' ability to use CBA. Also an upgrading in the regular classroom teacher's capacity to teach using a larger range of instructional alternatives would be obligatory. Even though Resource Teachers would assist here in the long term, initially some input would be necessary in the use of cooperative learning strategies and social skills training. The effect of such changes would be of benefit to all students not just those who are disabled.

Teaching Resources

Systematic data-based instruction

The use of CBA as described in Table 2, and especially as prescribed for use by teachers in special education, is known as systematic-data based instruction. It requires teachers to follow a problem solving approach to learning difficulties. To be successful at solving these problems requires that a teacher (a) generates a performance profile of individual student learning over time (curriculum-based measurement), and (b) then systematically evaluates students' performances in the relevant curriculum areas against exposure to a range of instructional procedures. Teaching continues in this manner until students achieve the desired rate of learning, and eventually the curriculum aims (i.e., the learning problem is solved). Many variations of this basic model exist and have been shown to be efficacious (e.g., Fuchs, Deno, & Mirkin, 1984; Fuchs & Fuchs, 1986; Wang, Rubenstein, & Reynolds, 1985; Waxman, Wang, Anderson, & Walberg, 1985; White, 1986).

Cooperative learning strategies

While it is clear that most teachers in both special and regular education would need some training to develop skills in systematic instruction, it is also apparent that curricula changes and teacher skill enhancement are necessary in other areas before integration is widely possible. For example, integration implies that students interact while they learn, whereas the regular school curriculum is competitively based. Few teachers are aware of the research outcomes in cooperative learning showing the advantages over competitively based programs for both high and low performing students (e.g., Johnson, Johnson, Warring, & Maruyama, 1986; Mevarech, 1985; Parker, 1985). Even fewer teachers have the skills required to implement such programs.

Social skills training

Another potential area of the school curriculum apparently ignored by curriculum planners is the area of social skill development. Obviously the ways in which people with a disability present and interact with others either enhances or detracts from their chances of integration with nondisabled students. While the evidence regarding the necessity of appropriate social skill development in the lives of all children continues to increase, social skills training remains ignored by curriculum planners (Cowen, Pederson, Babigan, Izzo, & Trost, 1973; Gannon, 1983; Gresham, 1984; Roff, Sells, & Golden, 1972; Ulman, 1957). Without appropriate social skills any students is likely to suffer a lifetime disadvantage more personally damaging than any learning disability. Certainly the process of supporting the interaction between students who are disabled and nondisabled, will continue to suffer as long as the training of social skills receives so little priority in schools. It is clear from available evidence that social skills training should be as essential a part of the regular school curriculum as reading and writing.

The Resource Teacher

While the above resources mentioned above (and probably others) would considerably enhance the process of integration, the most important resource of all is the Resource Teacher. These teachers have existed in Australian schools ever since the idea of integration gained a foothold. The Resource Teacher was originally meant to provide the resources necessary for regular classroom teachers to maintain the one, or maybe two, students with a disability that would eventuate as special schools were disbanded. One idea, predominant at the time was for the special school teachers to act as Resource Teachers because they had the ability to teach children with disabilities. It was always a poor idea and was not put into practice. Instead, Resource Teaching has become a political football with a large percentage of them having little or no skills to program and instruct mainstreamed students with disabilities, and/or little or no ability to impart the skills that they have to the classroom teachers who need them. Many school Principals see Resource Teachers as an extra pair of hands to enable them to overcome some, or other, of the deficiencies they see in their school structure. Without a clear evaluation process to direct them to the students and teachers requiring their help, and spread thinly across to many students or schools, Resource Teachers can never have the impact they were intended to have.

For Resource Teachers to be able to provide teachers with the requisite knowledge and skills to support the process of integration requires greater definition of their role and an upgrade in their status and importance in the school. Because these teachers must have a large number of instructional skills at their fingertips it is important that they are good teachers. Good teachers, however, are less likely to opt to be Resource Teachers as they receive no more pay than regular classroom teachers and have a more demanding job. They have to teach both the students who are usually more difficult to teach (those who have difficulties learning), and at the same time teach the classroom teachers how to do likewise. The consultant teacher model of a Resource Teacher, with its extra demands, is not likely to be popular among experienced teachers unless it is given the status and income that, in comparison, obviously accrues if they choose to become an administrator. When a very experienced teacher who undertakes to train as a teacher consultant and is given the same status and income as, say the deputy principal, the position of resource teacher will become effective in the manner it was meant to be. Certainly the role prescribed for the Resource Teacher in Table 2 would be possible.

Summary

It is clear that integration is not a systems-wide phenomenon in Australian regular schools. The predominating referral, assessment and placement system, along with the special school system, seems to ensure that this lack of widespread integration will persist. In addition, the predominant perception of integration is that philosophically it is acceptable, but at a practical level it will never work!

The fears of teachers, students and parents in regular schools about perceived disadvantages for nondisabled students, and the perceived lack of resources is a distracting argument against integration. Differentiating between students for instructional purposes has never been supported by empirical study as being advantageous for students. The common perception amongst the public and professionals, however, is that differentiation and allocation (i.e., labelling and differential placement) is advantageous and necessary for effective instruction (Carrier, 1986). This misperception can be overcome by a systems wide change to the assessment for, and the special support given, to students who have difficulty learning. The resulting system should be both equitable, and also seen to be equitable. It should be a system that continually monitors students in need of support, and provides the support in the least restrictive way. An individually focused, formative, curriculum-based assessment is offered as a more equitable and responsive system than the one which at present predominates in the Australian school system. In addition, the introduction of a local, accountable, and personally involved assessment team is proposed to monitor and justify the support given by the system.

A redirection of the resources at present wasted in the education system (e.g., the present assessment and placement effort) is necessary if integration is to be given a chance of working. It demands a movement towards fostering systematic data based instruction, social skills training, cooperative learning and a more experienced, skilled and highly regarded Resource Teaching position.

Conclusions

Integration can work! It can live up to the promise of providing a better education for students with disabilities. It can also provide a richer educational experience for students who are not disabled.

It can only do this, however, if the school system becomes more instructionally focused. Schools are meant to be for students. They are supposed to be places where students learn. Unfortunately, we as a community, politicians, and the professionals involved in schooling all interfere to pull teachers away from this instructional/learning focus. We place too many distracters in the way of both students and teachers. The effective schools literature (e.g., Murphy, Weil, Hallinger, & Mittman, 1982; Murphy, Weil, Hallinger, & Mittman, 1985) is beginning to describe how schools can amass resources to support a more instructional focus.

Students go to schools to learn. Teachers go to schools to teach. If the resources available for schools cannot be directly linked to these two foci then they probably are not relevant (e.g., the present assessment and placement procedures are irrelevant and an enormous waste of resources that should be redirected). If we are going to succeed with integration we must maintain an instructional focus. We must be able to show, in every case, and in an ongoing manner, that sufficient support is being provided for students who are disabled to learn in the least restrictive manner and to ensure that their nondisabled peers are not disadvantaged by the effort. While the system I have described in this chapter may not be perfectly able to do this, it certainly has been demonstrated to be feasible, and to be much better than the system that it should replace.

References

Algozzine, B., & Ysseldyke, J.E. (1983). LD or not LD: That's not the question! *Journal of Learning Disabilities, 16,* 29–31.

Australian Schools Commission. (1975). *Report For The Triennium 1976–1978.* Canberra: Australian Government Publishing Service.

Beck, R. (1982). *The Precision Teaching Project.* 3300 3rd St. NE, Great Falls, MT 59404: The Precision Teaching Project.

Bickel, W.E., & Bickel, D.D. (1986). Effective schools, classrooms, and instruction: Implications for special education. *Exceptional Children, 52,* 489–500.

Blankenship, C.S. (1985). Using curriculum-based assessment data to make instructional decisions. *Exceptional Children, 52,* 233–238.

Briggs, F. (1984). Streaming rediscovered. *Set, 2.* Hawthorn, Vic: ACER.

Brown, G., McNally, P., & Patching, B. (1983). Criterion based instruction: Theoretical considerations and its practical considerations. *Australian Journal of Special Education, 7,* 19–25.

Catlin, F. (1986). What's disintegration. *Special Education Matters, 3,* 101–111.

Clark, S. (1987). *The attitudes of primary school teachers in a Queensland school towards mainstreaming.* Unpublished thesis, School of Education, James Cook University of North Queensland, Townsville.

Cohen Report. (1973). *Teacher Education 1973–75. Report of the A.C.A.E. Special Committee on Teacher Education.* Canberra: Australian Government Publishing Service.

Cowen, E.L., Pederson, A., Babigan, H., Izzo, L.D., & Trost, M.S. (1973). Longterm follow-up of early detected vulnerable children. *Journal of Consulting and Clinical Psychology, 41,* 438–446.

Deno, S.L. (1985). Curriculum Based Measurement: The emerging alternative. *Exceptional Children, 52,* 9–232.

Doherty, P. (1982). *Strategies and initiatives for special education in NSW. A Report of the Working Party on a Plan for Special Education in NSW.* Sydney: Department of Education NSW.

Fuchs, L.S., Deno, S.L., & Mirkin, P.K. (1984). The effects of frequent curriculum based measurement and evaluation on pedagogy, student achievement, and student awareness of learning. *American Educational Research Journal, 21,* 449–460.

Fuchs, L.S., & Fuchs, D. (1986). Effects of systematic formative evaluation: A meta-analysis. *Exceptional Children, 53,* 199–208.

Fuchs, L., Wesson, C., Tindal, G., Mirkin, P., & Deno, S. (1981). *Teacher efficiency in continuous evaluation of IEP goals.* Research Report #53. Minneapolis, MN: Institute for Research on Learning Disabilities, University of Minnesota.

Fullan, M. (1972). Overview of the innovator process and the user. *Interchange, 3,* 1–46.

Galagen, J.E. (1985). Psychoeducational testing: Turn out the lights, the party's over. *Exceptional Children, 52*, 288–299.

Gannon, P.M. (1983). Social skill training for the handicapped in mainstream classrooms. *Australian Journal of Special Education, 7*, 14–18.

Gannon, P.M. (1988). The integration of students with disabilities in Australian regular schools: We have a long, long way to go. In A.F. Ashman (Ed), *Integration 25 years on* (The Exceptional Child Monograph No. 1, pp. 41-46). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Gardner, W. (1977). *Learning and behaviour characteristics of exceptional children and youth.* Boston: Allyn & Bacon.

Germann, G., & Tindal, G. (1985). An application of curriculum based assessment: The use of direct and repeated measurement. *Exceptional Children, 52*, 244–265.

Gersten, R. (1985). Direct instruction with special education students: A review and evaluation of research. *The Journal of Special Education, 19*, 41–58.

Glass, G.V. (1983). Effectiveness of special education. *Policy Studies Review, 2, Special #1*, 65–78.

Goldberg, M., Passow, H.A., & Justman, J. (1966). *The effects of ability grouping.* New York: Teachers College Press.

Goodman, L. (1985). The effective schools movement and special education. *Teaching Exceptional Children, Winter*, 102–105.

Gresham, F.M. (1984). Social skills and self-efficacy for exceptional children. *Exceptional Children, 51*, 253–261.

Griffen, G.A., Barnes, S.O., O'Neal, S., Edwards, S.A., Defino, M.D., & Hukill, H. (1984). *Changing teacher practice: Executive summary of an experimental study.* Austin, TX: R & D Center for Research in Teacher Education, University of Texas.

Hargreaves, A. (1984). Experience counts, theory doesn't: How teachers talk about their work. *Sociology of Education, 57*, 244–254.

Haring, N.G., & Lovitt, T. (1969). *The application of functional analysis of behaviour by teachers in a natural setting.* Unpublished manuscript, Experimental Education Unit, University of Washington, Seattle.

Heller, K.A., Holtzman, W.H., & Messick, S. (Eds.) (1982). *Placing children in special education: A strategy for equity.* Washington, DC: National Academy Press.

Howell, K.W., & Kaplan, J.S. (1980). *Diagnosing basic skills: A handbook for deciding what to teach.* Columbus, OH: Charles E. Merrill.

Huberman, M. (1983). Recipes for busy kitchens. *Knowledge: Creation, Diffusion, Utilisation, 4*, 478–510.

Hulling, L.L., Hall, G.E., Hord, S.M., & Rutherford, W.L. (1983). *A multi-dimensional approach for assessing implementation success.* Austin, TX: R & D Center for Teacher Education, University of Texas.

Human Rights and Equal Opportunity Commission. (1990). *The rights of people with disabilities: Areas of need for increased protection.* Canberra: Government Printing Office.

Jenkins, J.R., & Pany, D. (1978). Standardised achievement tests: How useful for special education? *Exceptional Children, 44*, 448–453.

Johnson, D.W., & Johnson, R. (1983). The socialization and achievement crisis: Are cooperative learning experiences the solution? In L. Bickman (Ed.), *Applied* *social psychology annual* (Vol. 4, pp. xx–xx). Beverly Hills, CA: Sage Publications.

Johnson, D.W., & Johnson, R. (1986). Mainstreaming and cooperative learning strategies. *Exceptional Children, 52*, 553–561.

Johnson, D.W., Johnson, R.T., Warring, D., & Maruyama, G. (1986). Different cooperative learning procedures and cross-handicap relationships. *Exceptional Children, 53*, 247–252.

Kavale, K.A., & Glass, G.V. (1982). The efficacy of special education interventions and practices: A compendium of meta-analysis findings. *Focus on Exceptional Children, 15*, 1–14.

Korinek, L., Schmid, R., & McAdams, M. (1985). Inservice types and best practices. *Journal of Research and Development, 18*, 33–38.

Kremer-Hayon, L., & Ben-Peretz, M. (1985). A strategy of professional development for dealing with individual differences in the classroom. *Educational Review, 37*, 19–28.

Madden, N.A., & Slavin, R.E. (1983). Mainstreaming children with mild handicaps: Academic and social outcomes. *Review of Educational Research, 55*, 519–569.

Marston, D., & Magnussen, D. (1985). Implementing curriculum based measurement in special and regular education settings. *Exceptional Children, 52*, 266–276.

Martin, E. (1976). Integration of the handicapped child into regular schools. In M. Reynolds (Ed.), *Mainstreaming: Origins and implications* (pp. 5–7). Reston,VA: The Council for Exceptional Children.

Martin, E. (1978). Preface. In M. Reynolds (Ed.), *Futures of education for exceptional students* (pp. iii–vi). Reston,VA: The Council for Exceptional Children.

Mevarech, Z.R. (1985). The effects of cooperative mastery learning strategies on mathematics achievement. *Journal of Educational Research, 78*, 372–377.

Milofsky, C.D. (1974). Why special education isn't special? *Harvard Education Review, 44*, 437–458.

Morsink, C.V., Soar, R.S., Soar, R.M., & Thopmas, R. (1986). Research on teaching: Opening the door to special education classrooms. *Exceptional Children, 53*, 32–40.

Murphy, J.M., Weil, M., Hallinger, P., & Mittman, A. (1982). Translating high expectations into school policies and classroom practices. *Educational Leadership, 40*, 22–27.

Murphy, J., Weil, M., Hallinger, P., & Mittman, A. (1985). School effectiveness: A conceptual framework. *Educational Forum, 40*, 361–374.

Newbold, D. (1977). *Ability grouping—The Banbury inquiry*. Slough, Berks: NFER.

Openshaw, R. (1988). Schools won't change. *Set: Research Information for Teachers, 1*, 2–6.

Parker, R.E. (1985). Small group cooperative learning: Improving academic, social gains in the classroom. *N.A.S.S.P. Bulletin, March*, 48–57.

Parmenter, T.R., & Nash, R. (1987). Attitudes of teachers and parents in ACT towards the integration of moderately intellectually handicapped children. *Australian Journal of Special Education, 11*, 26–31.

Peterson, J., Heistad, D., Peterson, D., & Reynolds, M. (1985). Montevideo Individualised Prescriptive Instructional Management System. *Exceptional Children, 52*, 239–243.

Purkey, S.C., & Degen, S. (1985). Beyond effective schools to good schools: Some first steps. *R & D Perspective, Spring*. C.E.P.M.University of Oregon.

Rich, Y. (1990). Ideological impediments to instructional innovation: The case of cooperative learning. *Teaching and Teacher Education, 6,* 81–89.

Roff, M., Sells, B., & Golden, M. (1972). *Social adjustment and personality development in children.* Minneapolis, MN: University of Minnesota Press.

Rosenfield, S., & Rubinson, F. (1985). Introducing curriculum based assessment through consultation. *Exceptional Children, 57,* 282–287.

Salvia, J., & Ysseldyke, J.E. (1985). *Assessment in special and remedial education* (3rd ed.). Boston: Houghton-Mifflin.

Sarason, S. (1982). *The culture of the school and the problem of change* (2nd ed.). Boston: Allyn and Bacon.

Schiefelbusch, R.L. (1987). Integration: Who benefits? *Australian Journal of Special Education, 11,* 4–9.

Slavin, R.E. (1984). Students motivating students to excel: Cooperative incentives, cooperative tasks, and student achievement. *The Elementary School Journal, 85,* 153–163.

Slavin, R.E., Leavey, M.B., & Madden, N.A. (1984). Combining cooperative learning and individualised instruction: Effects on student mathematics achievement, attitudes and behaviours. *The Elementary School Journal, 84,* 409–422.

Sontag, E. (1982). Perspective on the status and future of special education and regular education. In M.C. Reynolds (Ed.), *The future of mainstreaming: Next steps in teacher education.* Reston,VA: Council for Exceptional Children.

Sparks, G. (1988). Teacher attitudes towards change and subsequent improvements in classroom teaching. *Journal of Educational Psychology, 80,* 111–117.

Stainback, W., & Stainback, S. (1984). A rationale for the merger of special and regular education. *Exceptional Children, 51,* 102–111.

Stieler, S. (1989). *The validation of a school based feeding program for severely disabled learners.* Unpublished doctoral thesis, James Cook University, Townsville.

Tawney, J.W., & Gast, D.L. (1984). *Single subject research in special education.* Columbus, OH: Charles E. Merrill.

Tindal, G., Shinn, M., Walz, L., & Germann, G. (1987). Mainstream consultation in secondary settings: The Pine County model. *The Journal of Special Education, 21,* 94–106.

Tucker, J.A. (1980). Ethnic proportions in classes for the learning disabled: Issues in nonbiased assessment. *The Journal of Special Education, 14,* 93–105.

Tucker, J.A. (1985). Curriculum based assessment: An introduction. *Exceptional Children, 52,* 199–204.

Ulman, C. (1957). Teachers, peers and tests: Prediction of adjustment. *Journal of Educational Psychology, 48,* 257–267.

Walker, H.M. (1986). The Assessments for Integration into Mainstream Settings (AIMS): Rationale, instruments, procedures and outcomes. *Journal of Clinical Child Psychology, 15,* 55–63.

Wang, M.C., & Baker, E.T. (1986). Mainstreaming programs: Design, features and effects. *The Journal of Special Education, 19,* 504–521.

Wang, M.C., Rubenstein, J.L., & Reynolds, M.C. (1985). Clearing the way for success for students with special needs. *Educational Leadership, 43,* 62–67.

Ward, J., & Center, Y. (1987). Attitudes of principals in NSW schools. In J. Ward (Ed.), *Educating children with special needs in regular classrooms.* Sydney: Macquarie University.

Waxman, H.C., Wang, M.C., Anderson, K.A., & Walberg, H.J. (1985). Synthesis of research on the effects of adaptive education. *Educational Leadership, 43*, 26–29.

White, O.R. (1986). Precision teaching: Precision learning. *Exceptional Children, 52*, 522–534.

White, O.R., & Haring, N.G. (1980). *Exceptional teaching*. Columbus, OH: Charles E. Merrill.

Wilhelms, F.T. (1958). *The nature of classroom groupings for learning*. ASCD Discussion Paper, H7. Wellington: New Zealand Council for Educational Reserach.

Winn, W., & Wilson, A.P. (1983). The affects and effects of ability grouping. *Contemporary Education, 54*, 119–125.

Ysseldyke, J.E., Algozzine, B., & Epps, S. (1983). A logical and empirical analysis of current practices in classifying students as handicapped. *Exceptional Children, 50*, 160–166.

Ysseldyke, J.E., & Thurlow, M.L. (1983). *Identification/classification research: An integrative summary of findings*. Minneapolis, MN: Institute for Research on Learning Disabilities, University of Minnesota.

Ysseldyke, J.E., Thurlow, M.L., & Christenson, S. (1983). *Evaluation research: An integrative summary of findings*. Minneapolis, MN: Institute for Research on Learning Disabilities, University of Minnesota.

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MAJOR PUBLICATIONS

1990

Bramley, J., van Kraayenoord, C., & Elkins, J. (1990). *Understanding young women with disabilities.* (A Report for the Department of Employment, Education and Training). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

1989

Gunn, P., & Bramley, J. (Eds.) (1989). *Adolescent girls with intellectual disabilities: School and post-school options.* (A Report for the Department of Employment, Education and Training). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

1988

Ashman, A.F. (1988). *Integration 25 years on* (The Exceptional Child Monograph No. 1). St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

Kelso, R., & Price, S. (1988). *Activities for babies and toddlers with Down syndrome: A physiotherapy approach.* St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

1987

Bramley, J. (1987). *Self-Advocacy Demonstration Project. An evaluation for the Trustees of the Corporation of the Roman Catholic Archdiocese of Brisbane.* St. Lucia: Fred and Eleanor Schonell Special Education Research Centre.

1986

Atkinson, J.K., Cochrane, K.J. & Elkins, J. (1986). *Learning Disabilities: A follow-up study of 65 children and young adults previously enrolled in specific learning disabilities classes.* St. Lucia: Fred and Schonell Eleanor Schonell Special Education Research Centre.

Berry, P., & Gunn, P. (1986). *Financial costs of rearing a Down syndrome child at home.* Final report to the Reserve Bank of Australia. St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1985

Bramley, J. (1985). *An investigation into the training and placement of visually impaired persons. A report for Yeronga College of Technical and Further Education, Visually Impaired Vocational Assistance Unit (VIVA).* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Bramley, J., Hayes, A., & Elkins, J. (1985). *Monitoring the Child and Parent Support Project, Gympie: Final Report.* St. Lucia: Fred and Schonell Eleanor Schonell Educational Research Centre.

Elkins, J., & Atkinson, J.K. (1985). *Comparative study of three school programs: OECD/CERI project on the transition of handicapped youth.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Elkins, J., Berry, P., & Andrews, R. (1985). *Schonell Evaluation Procedure: A system for the formative evaluation of facilities serving disabled people.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre. (5 booklets)

Elkins, J., Berry, P., & Wells, B. (1985). *SEP Training Materials.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre. (Included with above)

1984

Andrews, R.J., Elkins, J., & Berry, P.B. (1984). *Evaluation, standards and accreditation of government subsidised services for handicapped people. Part II: The Schonell Evaluation Procedures (PROJECT SEP).* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1983

Atkinson, J.K., Cochrane, K.J., Andrews, R.J. (1983). *A study of two residential provisions for severely/profoundly intellectually handicapped clients and a comparison of certain interactional behaviours.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1982

Andrews, R.J., Berry, P.B., Elkins, J., & Wells, B. (1982). *A study of Australian organizations and services for handicapped persons funded through the Handicapped Persons Assistance Act (1974). Part II: Facilities.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Andrews, R.J., & Berry, P.B. (Eds.) (1982). *A resource document on fostering, human fulfilment and the aging and aged developmentally disabled person.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Panckhurst, F., & Panckhurst, J. (1982). *Evaluation, standards and accreditation of government-subsidised services for handicapped people. Part I.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1981

Andrews, R.J., & Elkins, J. (1981). *The management and education of children with spina bifida and hydrocephalus.* ERDC Report No. 32. Canberra: AGPS.

Andrews, R.J., Berry, P.B., Elkins, J., & Wells, B. (1981). *A study of Australian organizations and services for handicapped persons funded through the Handicapped Persons Assistance Act (1974). Part I: Organizations.* St. Lucia: Fred and Eleanor Schonell Educational Schonell Research Centre.

Berry, P., Elkins, J., & Andrews, R.J. (1981). *Implementing policy in the provision of services for the handicapped: Inservice training workshops for staff of the Department of Social Security in Australia.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Conrad, L.M., & Andrews, R.J. (Eds.) (1981). *Special education facilities in Australia: Proceedings of a national conference.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Hayes, A., Steinberg, M., Cooksley, E., Jobling, A, Best, D., & Coulston, A. (1981). *Special preschools: Monitoring a pilot project. Vol. I and Vol. II (Appendices).* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Watts, B.H. (1981). *Aboriginal futures: Review of research and developments and related policies in the education of Aborigines.* ERDC Report No. 33. Canberra: AGPS.

Watts, B.H., Elkins, J., Conrad, L.M., Andrews, R.J., Apelt, W.C., Hayes, A., Calder, J., Coulston, A.J., & Willis, M. (1981). *Early intervention programs for young handicapped children in Australia 1979-1980.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1980

Elkins, J., Andrews, R.J., Berry, P.B., & Wells, B. (1980). *The future of services for handicapped persons in Australia.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Elkins, J., Calder, J., Conrad, L., Shepherd, J., Coulston, A., & Willis, M. (1980). *Toy libraries in Australia: A report with special attention to their role in services for young handicapped children and their families.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1979

Andrews, R.J., Elkins, J., Burge, J.A., McDonnell, E.R., & Buttfield, B. (1979). *The educational needs and management of spina bifida and hydrocephalic children. Part II.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Andrews, R.J., Elkins, J., Berry, P.B., & Burge, J.A. (1979). *A survey of special education in Australia: Provisions, needs and priorities in the education of children with handicaps and learning difficulties.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1978

Andrews, R.J., Elkins, J., Burge, J.A., McDonnell, E.R., & Buttfield, B. (1978). *The educational needs and management of spina bifida and hydrocephalic children. Part 1.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

Watts, B.H., & Henry, M.B. (1978). *Focus on parent/child. Extending the teaching competence of urban Aboriginal mothers.* Canberra: AGPS.

Watts, B.H., Elkins, J., Henry, M.B., Apelt, W.C., Atkinson, J.K., & Cochrane, K.J. (1978). *The education of mildly intellectually handicapped children in the eastern states of Australia: Philosophies, practices and outcomes.* ERDC Report No. 17. Canberra: AGPS.

1977

Berry, P.B., Andrews, R.J., & Elkins, J. (1977). *An evaluative study of educational, vocational and residential programs for the moderately to severely mentally handicapped in three states.* St. Lucia: Fred and Eleanor Schonell Educational Research Centre.

1976

Watts, B.H. (1976). *Access to education: An evaluation of the Aboriginal Secondary Grants Scheme.* Canberra: AGPS.

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